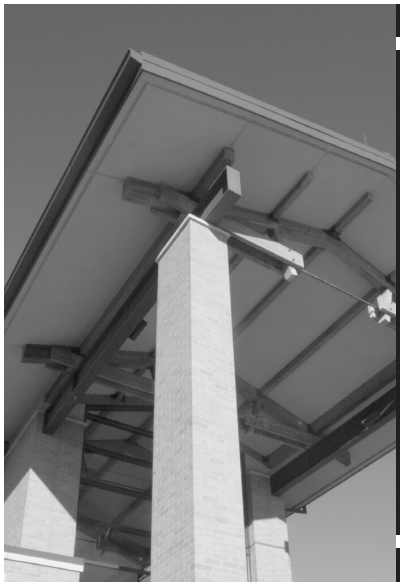

METROPOLITAN COMMUNITY COLLEGE

OMAHA, NEB.

2011-2012 COURSE CATALOG

This catalog is effective Fall quarter 2011. 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 (MCC) reserves the right to cancel or modify courses. The official catalog is the printed version. A PDF version of this catalog is available. In addition, MCC provides an online version of the catalog that may reflect minor changes made during the year.

Welcome

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

As you look through the catalog, we hope you find a program, class, or service to meet your needs. MCC offers an academic transfer program for students interested in getting a bachelor's degree, as well as more than 175 degrees and awards in career and technical areas. High school students can begin their college experience by taking classes through the CollegeNOW!, Career Academy, and dual enrollment programs. Continuing Education provides opportunities in classes 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. For students too busy to come to campus, MCC offers our e-learning options that let students take classes at home, at the office, or at a community site via interactive television, course conferencing, or the Internet. More than 100 online classes are offered each quarter.

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

ACCREDITATION

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

Higher Learning Commission
230 N. LaSalle St. Ste 7–500
Chicago, IL 60604-1413
(800) 621-7440; (312) 263-0456
Fax: (312) 263-7462
www.hlcommission.org

MISSION

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

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

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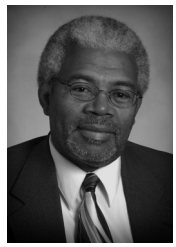
2011–2012 BOARD OF GOVERNORS

RON HUG
District 1

LINDA MCDERMITT
District 1



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District 5

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At-Large

ABOUT THE MCC CATALOG

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

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

General Education Requirements

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

Catalog Editions

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

Major Requirements

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

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

Course Descriptions

Beginning on page 293 are course descriptions of all courses currently taught at MCC. 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.

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 will be noted under the course title in the course descriptions section. (*Note: Some prerequisites may have their own prerequisite.*)

A limited number of courses also have co-requisites that are either required or recommended to be taken at the same time as the course described. Co-requisites appear beneath the prerequisites.

Developmental Classes and Basic Skills Assessment

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

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

ACADEMIC CALENDAR FOR SUMMER 2011–SUMMER 2012

Summer 2011 (11/SS)

Classes begin for ten-week and first five-week sessions ..... June 6 (M)
Independence Day recess (College closed) ..... July 4 (M)
Classes end for first five-week session ..... July 11 (M)
Classes begin for second five-week session ..... July 12 (T)
Classes end for ten-week and second five-week sessions ..... Aug. 15 (M)

Fall 2011 (11/FA)

Labor Day recess (College closed) ..... Sept. 3–5 (SA–M)
Classes begin ..... Sept. 6 (T)
Classes end ..... Nov. 21 (M)

Winter 2011–2012 (11/WI)

Thanksgiving Day recess (College closed) ..... Nov. 24–27 (TH–SU)
Classes begin ..... Dec. 2 (F)
Last class day before holiday recess ..... Dec. 22 (TH)
Holiday recess (College closed) ..... Dec. 24–Jan. 2 (SA–M)
Classes resume after holiday recess ..... Jan. 3 (T)
Martin Luther King recess (College closed) ..... Jan. 16 (M)
Classes end ..... Feb. 27 (M)

Spring 2012 (11/SP)

Classes begin ..... March 8 (TH)
Spring recess (College closed) ..... March 24–25 (SA–SU)
Classes end ..... May 23 (W)
Memorial Day recess (College closed) ..... May 26–28(SA–M)

Summer 2012 (12/SS)

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

MCC'S HISTORY

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

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

With a 2009–10 enrollment of 50,791 students (credit and noncredit), MCC is one of the fastest growing postsecondary institutions in Nebraska. This enrollment compares to 2,430 credit students in 1974–75, the College's first year.

PROFILE

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

MCC offers more than 100 one-year and two-year programs in business administration; computer and office technologies; culinary arts, 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.

PROGRAM ACCREDITATION

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

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

- The Associate Degree Nursing program is accredited by the National League for Nursing Accrediting Commission, 61 Broadway, New York, NY 10006.
- The Associate Degree Nursing and Practical Nursing programs are approved by the Nebraska Board of Nursing, P.O. Box 95044, Lincoln, NE 68509.
- The Automotive Technology and Auto Collision Technology programs are accredited by the National Automotive Technicians Education Foundation (NATEF), 101 Blue Seal Dr. Ste. 101, Leesberg, VA 20175.
- All MCC Business programs are accredited by the 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 Dr., 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 Ste. 500, Washington, DC 20005.
- The Emergency Management Technician/ Paramedic program is accredited by the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions, 4101 W. Green Oaks Blvd. Ste. 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 Ste. 600, Denver, CO 80202.
- The Human Services program is accredited by the Council for Standards in Human Service Education (CSHSE), 1900 Galen Dr. Ste. 412, Houston, TX 77030.
- The 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. Ste. 402, P.O. Box 94667, Lincoln, NE 68509.
- The Respiratory Care Technology program is accredited by the Commission on Accreditation for Respiratory Care, 1248 Harwood Rd., Bedford, TX 76021.
- Theatre Technology is a registered apprenticeship program approved to grant an apprenticeship certificate by the U.S. Department of Labor, Frances Perkins Building, 200 Constitution Ave., NW Washington, DC 20210.
- The associate degree Health Information Management Systems (HIMS) program is accredited by the National Association for Healthcare Documentation Integrity (ACDI), 4230 Kiernan Ave. Ste. 130, Modesto, CA 95356.

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
P.O. Box 3777
Omaha, NE 68103-0777

OMBUDSPERSON

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

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

DIVERSITY

MCC believes that diversity, in many forms and expressions, is essential to its educational mission and to its success as an institution. 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 or call (402) 457-2346.

MCC Locations

Applied Technology Center

104th and State Sts.

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

Bellevue Center

2820 Arboretum Dr.

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

Elkhorn Valley Campus

204th and W. Dodge Rd.

The Elkhorn Valley Campus opened in 1980 and was renovated and updated in 2007. In Fall 2008, the Gallery of Art and Design opened. Academic degree programs available at the Elkhorn Valley Campus include Accounting and Business; Information Technology; Interior Design; Art; Photography; Audio/Video Communication; Electronic Imaging; Graphic Communication; Theater; Air Conditioning, Heating, and Refrigeration; Civil Engineering Technology; and Architectural Drafting. In addition, support courses for other MCC degree programs are also available.

Fort Omaha Campus

30th and Fort Sts.

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

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

Fremont Area Center

9th and Broad Sts.

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

Offutt Air Force Base

Bellevue

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

Sarpy Center

91st and Giles Rd.

Opened in 1999, the center is a collaborative effort between MCC and the City of La Vista. The Sarpy Center has 15 classrooms. A commons area links the center with the La Vista Public Library. This location offers many courses that support academic degree programs.

South Omaha Campus

27th and Q Sts.

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

Washington County Technology Center

Hwy 30 and Hwy 75

Opened in Spring 2011, the Washington County Technology Center is home to the Process Operations Technology program. The space was acquired to accommodate growth in MCC enrollment and the need for industry-relevant curriculum and training in Blair and Washington County. The location allows for classroom and lab facility needs of the program along with support courses for other MCC degree programs.

Community Locations

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

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

Group Visits, Workshops and Presentations
Visits are available for large groups. Group visits may include campus tours and opportunities to learn more about MCC programs. Schedule group tours at least two weeks in advance by calling (402) 457-2400 or visit www.mccneb.edu/visitation.

Student Services – Campus and Student Affairs

ADMISSION REQUIREMENTS

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

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

Although the American College Testing (ACT) placement test is not required, if a student has taken the ACT within the last two years, he/she may have the scores sent to MCC or bring a copy of the score report when meeting with an advisor.

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

Admission to Specific Programs
In addition to the general admission procedures, some programs have specific requirements and a formal admissions process. Among the items generally considered in determining the eligibility of a student for admission to a program are educational and occupational experiences and other reasonable standards to ensure that the student possesses the potential to complete the program successfully. The College and programs reserve the right to deny admission to any student who would not be employable in their respective area of study.

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

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

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

- Immigration laws require the F-1 student to attend college as a full-time credit-seeking student.
- A student on a temporary visa is considered to be non-resident for purposes of tuition payments.
- The applicant is required to take the Test of English as a Foreign Language (TOEFL). The applicant is responsible for making early arrangements for the test via online registration at www.ets.org or writing to:
  TOEFL
  Educational Testing Service
  Princeton, NJ 08540, USA
  Test results must be sent to MCC via TOEFL institutional code number 9621.
- After admission, students need to complete placement testing in order to determine appropriate placement in classes.
- The applicant is required to complete an international application for admission form.
- The applicant must provide an official high school transcript of grades to include a date of graduation. Any student transferring from another college or university in the United States is required to provide an official transcript and transfer form.
- The applicant is required to provide evidence of financial independence while attending MCC. This means the student must be able to prove to the College the student has the financial means to pay for all college and living expenses while at MCC.
- The applicant is required to be insured under a health and accident insurance policy as identified by the College. Call (402) 457-2281 or email internationalstudentsdepartment@mccneb.edu.
- Once accepted, students must register for 12 credit hours or more each quarter to stay in status.

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

Admission for High School Students

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

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

A high school student taking college courses for the first time should go to www.mccneb.edu and click on College for High School Students to view numerous options.

Transfer of Credits from Another College

A student who wishes to transfer credits from another college to MCC must provide official transcripts. To declare a program of study, call (402) 457-2400 or contact Student Services. 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

Full-Time vs. Part-Time Status

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

A student wishing to enroll in more than 25 credit hours needs approval from a campus dean/executive director or Student Services director.

ENROLLMENT PROCEDURES

New Students:

- Visit a convenient MCC location or www.mccneb.edu to get more information about MCC and academic programs
- Complete a Basic Skills Assessment (if needed)
- Meet with an academic advisor by calling (402) 457-2400 to make an appointment
- Enroll in classes via phone registration at (402) 457-5231 or with an academic advisor or a counselor
- Pay tuition for classes

Current or Former Students

Online Registration via WebAdvisor:

- Visit www.mccneb.edu to access WebAdvisor.
- Enter User ID and password*
  *A User ID and password are required to access online registration. To obtain an ID, visit any Student Services.

WebAdvisor – WebAdvisor services include:

- Registration for credit and noncredit classes
- Grades and class schedules
- Requests for official transcripts
- Option to drop classes
- Address change form
- Account summaries by term
- Payment options
- Degree audits
- Financial aid information

Phone Registration:

- Call (402) 457-5231 or toll-free (800) 228-9553
- Have student ID ready
- Have course and section numbers or course synonym numbers available

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:

- 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.
- A student may withdraw from a course any time prior to the last day to drop a class section.
- Withdrawing from a course within the designated drop period results in a W that is recorded on the student's permanent record.
- Failure to withdraw from a class may result in the assignment of an F grade to the student's permanent record.
- Schedule changes are the responsibility of the student.

Course Cancellations

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

TRANSCRIPTS

Transcript Retention

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

Transcript Changes

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

Transcript Requests

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

- Requesting a transcript via the student's WebAdvisor account
- Faxing a completed transcript request form, Attn: Records, to (402) 457-2244

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

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

TUITION

Classification

Students are classified for the purpose of assessing tuition.

Resident

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

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

Non-Resident

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

Costs for Credit Classes*

Residents

Standard tuition	$48/credit hr.
Persons 62 years of age or older	$24/credit hr.
CollegeNOW! high school students	$24/credit hr.
Afternoon reduced rate**	$33.60/credit hr.

Non-Residents

Standard tuition	$71.50/credit hr.
Persons 62 years of age or older	$35.75/credit hr.
Afternoon reduced rate**	$50/credit hr.

Fees

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

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

**Afternoon Reduced Rate

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

High School CollegeNOW! Student Tuition

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

62 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.

Books and Materials

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

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

International Student Health Insurance
MCC requires that all international students purchase a health insurance policy through the College. The insurance premiums will be collected by MCC prior to class registration for submission to the insurance company. Call (402) 457-2281 for more information or email internationalstudentsdepartment@mccneb.edu.

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

TUITION PAYMENT
After registration, students will be 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, and VISA credit card payment is accepted:

- In person at Student Services
- Via phone at (402) 457-5231, (402) 457-2405 or toll-free (800) 228-9553
- Online at www.mccneb.edu via WebAdvisor (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 cancelled check is proof of payment.

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

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

Students who feel individual circumstances warrant exceptions from this policy may contact Student Services.

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

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

Change of Address
All changes of address and telephone numbers should be reported to (402) 457-2400. Billing, refunds, and enrollment information from MCC are mailed to the latest address on file. Any information in a student's personal College record is considered confidential and is issued only upon written authorization by a student.

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

1. 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.

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

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

3. Program-Based Transfer Guides
Program-Based Transfer Guides list the courses that will satisfy admission requirements to specialized programs such as health or engineering. Guides contain both general education and major course requirements.

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

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

CREDIT AWARDED AS AN ALTERNATIVE TO ATTENDING FORMAL CLASSES

MCC may grant academic credit for the following:

- AP Program – high school advanced placement credit opportunity
- Credit for knowledge acquired through work experience
- Credit for a military service transcript
- Demonstration of proficiency in an MCC course through success on a course exam(s)
- International Baccalaureate (IB) – international high school credit opportunity
- Successful completion of national standardized exams (CLEP and DANTES)

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

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

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

AP – Advanced Placement Program® High School Credit Opportunity

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

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.

High School Advanced Placement through Secondary Partnerships

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

- Enrolling at MCC within two years of high school graduation
- Obtaining a grade of B or better in the course(s) to be considered for advanced placement
- Submitting an application with an official high school transcript to:

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

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

Credit for Learning Acquired through Work Experience

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

Credit for Military Service

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

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

Students may contact Records at (402) 457-2411 for information regarding procedures.

The College-Level Examination Program (CLEP)

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

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

Course Proficiency Exams

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

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, a student will need to have an official national exam score report mailed to:

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

International Baccalaureate (IB) Program High School Credit Opportunity

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

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

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

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

Financial Aid

Financial aid is money available to assist 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. The federal and state grants are only available to the student who has not earned a bachelor's or a professional degree.

Philosophy

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

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

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

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

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

Nebraska State Grant (NSG)
Nebraska residents with exceptional financial need are eligible for this grant. 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 his/her state may call the Director of Financial Aid at (402) 457-2330.

The student must be enrolled in a minimum of six credit hours each quarter to receive an NSG.

Board of Governors Tuition Grant (BGTG)
Recipients must have financial need and be legal residents of Nebraska. This grant can only be used to pay tuition charges. 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.

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 terms and conditions of employment are available from Financial Aid. Since the funding available for these programs is limited, eligible students will need to request information on eligibility and jobs available from Financial Aid. Students who have already attained a bachelor's degree are not eligible to apply for these funds.

Federal Direct Loan Program or Stafford Loans
This federal program provides low-interest loans to students. Students must file the Free Application for Federal Student Aid (FAFSA) to determine their eligibility for this program. Students who have already attained a bachelor's or professional degree are eligible to apply for this loan.

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

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

Federal Direct PLUS Loan
This loan program is designed to assist the parent(s) who wants to borrow money to help pay for the educational expenses for each child who is a dependent undergraduate student. The student must be enrolled for at least six credit hours.

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

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

APPLICATION PROCEDURES

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

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

Free Application for Federal Student Aid (FAFSA)

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

Verification Process

Thirty percent of all federal aid applicants are selected by the Department of Education for verification. Verification requires that documentation be provided to verify the information submitted on the FAFSA. Students are required to submit a verification worksheet, tax information, and any other necessary documents in order to complete the required process. Any documentation requested by MCC must be provided within 14 days of receipt of the request, or the student file may be inactivated. No financial aid disbursements can be made until the verification process is complete. A student may call the office to re-activate the file at any time during the current academic year once all documents are received.

GENERAL ELIGIBILITY REQUIREMENTS

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

AWARDING PROCEDURES

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

Financial Aid uses the following criteria to award funds to financial aid applicants:

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

GRANT PAYMENT AUTHORIZATION AND DISBURSEMENT PROCEDURES

Authorization Procedures

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

Payment cannot be authorized for the following situations:

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

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

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

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

Overlapping Enrollment

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

Disbursement Procedures

After all charges (i.e., tuition, books, and supplies) have been deducted from the total amount of the quarterly award, any remaining credit balance is issued in the form of a check and mailed directly to the student or sent to Higher One and disbursed according to the students's refund preference, typically within two weeks of the financial aid census date. Refunds are then processed weekly after the census date. Single quarter loans must be disbursed in a minimum of two disbursements.

Return of Federal Funds

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

Students who receive all F grades or a combination of F, FX, W, and WX grades are considered to have unofficially withdrawn from classes. Students receiving federal financial aid funds who drop out without notifying MCC may be subject to repayment of federal funds. Students may owe the College for charges no longer paid by financial aid.

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

STANDARDS OF SATISFACTORY PROGRESS REQUIREMENTS AND PROCEDURES

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

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

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

Rule 1: Grade Point Average Requirements for All Students

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

GPA REQUIREMENTS FOR FINANCIAL AID				
Certificate Programs				
Credit Hours Attempted	0–23.5	24–29.5	30–39.5	40+
Minimum cumulative GPA required	1.0	1.5	1.8	2.0
Associate Degree Programs				
Credit Hours Attempted	0–23.5	24–29.5	30–79.5	80+
Minimum cumulative GPA required	1.0	1.5	1.8	2.0

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

Rule 2: Sixty-Seven Percent Course Completion
All students who have financial aid must receive passing grades (A, B, C, D, P, or R) in at least 67 percent of the credit hours in which they were enrolled. If they receive an F, FX, W, WX, I, or V grade for any credit hours, these will be considered unsuccessful grades and reduce the completion rate.

Rule 3: Maximum Credit Limit to Receive Financial Aid
Institutions of higher education (schools beyond high school), by Department of Education regulation, must set a maximum credit limit in which those students who receive financial aid must complete their program of study. That maximum number of credit hours is 150 percent of the published number of credit hours for a program.

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

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

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

Rule 4: Maximum Credit Limit to Receive Financial Aid for ESL Classes
Federal and state financial aid will be available to students taking ESL (English-as-a-Second Language) classes, but students will be limited to 100 attempted ESL credit hours. Attempted credit hours mean all ESL classes for which you have registered and have received either a grade (P, R, WX, F) or a W (withdraw). After you have attempted 100 credit hours of ESL classes, you will not be eligible for additional aid. You may regain eligibility for federal and state aid when you are ready to take developmental classes or 1000-level credit classes. The total number of attempted credit hours in ESL classes will be counted by Financial Aid at the end of each quarter for which a student is enrolled and receiving financial aid.

ESL Courses

Students may receive federal student aid (FSA) funds for ESL courses that are part of a larger eligible program. There are differences throughout. ESL courses do not count against the one-year limitation on remedial coursework. If an MCC student is permitted to enroll in ESL or other remedial courses that do not apply to a degree or certificate, receiving FSA loans over a series of quarters for such work can exhaust eligibility for FSA loans before the student completes his/her program. Attempted credit hours mean all ESL classes; the total number of attempted credit hours in ESL classes is counted by Financial Aid at the end of each quarter the student is enrolled and receiving financial aid.

Repeating Classes

Students may not receive aid for classes that they have previously taken and successfully completed with a P grade or a grade of C or better. Students may only take a class and receive financial aid for that class for a maximum of two times if they received an R, D, FX, W, Z, or F grade.

Developmental Classes

Students enrolled solely in remedial programs are not eligible for financial aid. If acceptance into an eligible program is contingent on completing remedial work, students cannot be considered enrolled in that program until they complete the remedial work. If students are admitted into eligible programs and take remedial coursework within the program, they can be considered a regular student even if they are taking all remedial courses before taking any regular courses. MCC counts up to one academic year's worth of these courses in students' enrollment statuses for federal aid. Similar to ESL, the limit is 45 quarter hours as defined by federal regulations.

MCC is not allowed to count noncredit remedial hours to determine students' enrollment statuses if the course is part of a program that leads up to a high school diploma or its recognized equivalent. Students are never permitted to receive funds for GED training or for coursework prior to the completion of high school even if the GED or high school training is offered at postsecondary schools or is required for a postsecondary program.

Quarterly Notification of Standards of Academic Progress

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

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

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

APPEAL PROCEDURES

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

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

Reinstatement of Financial Aid

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

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

SELECTED GRANT/ SCHOLARSHIP PROGRAMS

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

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

Many other scholarships are offered to MCC students based on financial need and require an official and valid electronic Federal Student Aid Report (SAR) to be on file in Financial Aid. The student should complete the Free Application for Federal Student Aid (FAFSA) each year after Jan. 1 if he/she plans to apply for any scholarships. The student should contact Financial Aid or visit the MCC 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 several other outside foundations. Visit www.mccneb.edu/scholarships for additional information on the application process and deadlines.

VETERAN SERVICES

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

Veterans Educational Benefits

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

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

Veteran Work-Study Program

Some veteran students qualify for the VA Work-Study Program that provides funds for part-time positions at various locations on campus serving veterans. Any questions should be directed to Veteran Services.

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

Campus and Student Services

STUDENT SUPPORT SERVICES

Academic Advisement

Academic advisors are generally the first point of contact for a new student. 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.

Academic Counseling

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

Assessment Services

A basic skills assessment 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 (ARCs), Math Centers, and Writing Centers provide assistance and preparation for placement tests. Assessment results are needed for new students so that they can be placed in courses properly. An assessment test is needed prior to registering for classes.

Career Services

A wide range of career, employment, and support services are available at the Elkhorn Valley, Fort Omaha and South Omaha campuses through Career Services. These friendly, individually tailored services provide assistance to students in making career decisions, obtaining employment information, and understanding the skills needed to retain employment.

Career Services provides no-cost services to MCC students seeking help with development needs. Services offered include career-based presentations; online assessment tools that suggest career options based on interests, skills, and values; career exploration; résumé tools and resources; job search resources; and career counseling.

Career Connection

Career Connection is an online center allowing MCC students and alumni to connect with local, regional, and national job opportunities and providing employers with a user-friendly means to connect with MCC students. Visit www.mccneb.edu/careercenter/careerconnection.asp. The center provides:

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

Disability Support Services

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

TRIO

The TRIO Student Support Services 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. TRIO 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 parents as they strive to meet their educational goals. Students must apply for program services; space is limited.

Single Parent/Displaced Homemaker Program

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

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, microcomputers, and specialized software. The Academic Resource Centers are located at the Elkhorn Valley, Fort Omaha and South Omaha campuses and the Fremont Area and Sarpy centers. Services are provided free to currently enrolled students.

Math 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.

Writing Centers

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

Tutoring

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

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
- a better chance for academic success, increasing the likelihood of staying in college

Current learning community opportunities include:

AIM for Success

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

For more information about the AIM program, visit www.mccneb.edu/learningcommunities/aimforsuccess.asp. To register, students should contact Student Services.

Passport Program

The Passport program is a learning community for students interested in starting their degrees at MCC and then transferring to a four-year institution. The learning 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 credits (27.0 semester) that will transfer to a four-year institution.

An academic advisor is assigned to the Passport group to help ensure student success. For more information, visit www.mccneb.edu/passport.

Paired Learning

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

TE@M

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

CAMPUS SERVICES

Bookstores

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

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

The Washington County Technology Center does not have bookstore services. For INCT courses, textbooks must be purchased at the South Omaha Campus. All other textbooks can be purchased at the Fort Omaha Campus.

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

For further information, contact any bookstore:

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

Campus Dining

Campus dining is available, while classes are in session, at the Fort Omaha Campus (Bldg. 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 (Bldg. 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 www.mccneb.edu/bistro.

Libraries

The MCC libraries provide research materials and instruction in support of the College's curriculum. Staff members are available to assist students with their research assignments and other reference questions. Libraries are located at the Elkhorn Valley, Fort Omaha, and South Omaha campuses. Current students, faculty, and staff are also welcome to use the City of La Vista Public Library at the Sarpy Center.

Each campus library houses a collection of print and audiovisual materials including books, journals, magazines, newspapers, DVDs, videos, CD-ROMs, and audiobooks. The library's website includes links to more than 50 databases providing access to online books, journals, magazines, newspapers, and reference sources. Off-campus access to the databases is available for current students, faculty, and staff.

Other resources available to students include:

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

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

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

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

Public Safety/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
- Providing escorts for staff, students, and visitors as requested

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

Annual Security Report

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

DISTRIBUTION OF LITERATURE

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

SPECIALIZED TECHNOLOGY AREAS

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

PARKING AND TRAFFIC

All motor vehicles used by students and staff should be registered with the College. Each campus has parking lots and traffic signs that are prominently displayed. Parking is not reserved and is available on a first-come, first-served basis. There is no charge for parking permits at the College, but all rules and regulations must be observed. Parking permits are issued through Student Services.

STUDENT IDENTIFICATION CARDS

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

Student Life and Leadership

Student organizations and clubs provide students with opportunities to develop their interests in a variety of areas. New student organizations and clubs may be proposed at any time. A current listing of clubs and organizations is available online at the Student Life website at www.mccneb.edu/studentlife.

HONOR SOCIETIES

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

LEADERSHIP

Student Advisory Council

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

Student Ex-Officio

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

To learn more, contact a campus dean/executive director.

ACTIVITIES

UNO Intramurals and Outdoor Venture Center

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

University of Nebraska–Omaha
HPER Bldg., Room 104F
6001 Dodge St.
Omah, NE 68182

An MCC student ID and registration receipt are required for participating in UNO intramurals.

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

Alumni Association

MCC's Alumni Association offers current and former students the opportunity to strengthen relationships built at MCC and stay connected with their community college long-term. Annual membership benefits include regular e-newsletters, discounts at MCC events and eating establishments, and access to MCC's Career Services and Writing Centers. For more information, contact the Alumni Association at (402) 457-2348.

Student Conduct

MCC serves more than 50,000 students at its campuses, centers, and satellite locations. In order to maintain a respectful and safe learning environment, students are expected to familiarize themselves with the Student Code of Conduct. The code is accessible on the MCC website, www.mccneb.edu, and by request at any Student Services office. The code was designed to protect the safety and security of the campus environment.

"The choices we make reflect who we are." College is time for learning, inside and outside the classroom. Each member of the campus community—faculty, staff, and students—contributes to the climate of MCC's locations.

- Respect fellow students, staff, and faculty
- Practice honesty
- Be tolerant of differences
- Demonstrate civility

Academic Code of Conduct

MCC acknowledges the importance of honest academic behavior. Students are expected to demonstrate integrity, honor, and responsibility and recognize the importance of being accountable for their academic behavior.

MCC respects the rights of faculty to teach and students to learn. Maintenance of these rights require 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 will not be tolerated.

Student Conduct Guidelines

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

DRUG-FREE SCHOOLS AND COMMUNITIES ACT NOTICE

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

Provisions of this act require the annual distribution to students of a notice of the standards of conduct. A copy of this brochure is available online at www.mccneb.edu/publicsafety/DrugFreeCampusPolicy2010.pdf.

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:

- the right to the opportunity to inspect his/her own educational records. Contact Records at (402) 457-2353 for an appointment.
- the right to the opportunity to challenge, through a hearing, the content of his/her educational records if it is believed that the records contain information that is inaccurate or misleading. Contact Records at (402) 457-2353 for an appointment.
- the right to limit disclosure of information from the student's record to those who have the student's 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 Records.

MCC does not publish a student directory. Pursuant to the Act, the College may provide the following directory information to third parties without the student's consent. The student's:

- name
- address (including MCC student email)
- phone number
- date and place of birth
- major field of study
- credit hour status
- dates of attendance
- degrees and awards received
- photograph

Students who object to the disclosure of any of the above information and would like it withheld from disclosure, may notify Records in writing at:

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

Academic Information

GRADING SYSTEM

- **A – Excellent** The student has demonstrated outstanding proficiency in mastering course objectives. (4 points per credit in computation of grade point average)
- **B – Above Average** The student has demonstrated above average proficiency in mastering course objectives. (3 points per credit in computation of grade point average)
- **C – Average** The student has demonstrated average proficiency in mastering course objectives. (2 points per credit in computation of grade point average)
- **D – Below Average** The student has demonstrated below average but passing proficiency in mastering course objectives. (1 point per credit in computation of grade point average)
- **F – Failing** The student has not demonstrated a minimum passing proficiency in mastering course objectives. (0 points per credit in computation of grade point average)
- **FX – Failure related to non-attendance**
- **I – Incomplete** Due to extenuating circumstances, a student may be given an extension of time to complete course objectives. An I grade must be made up prior to the end of the succeeding quarter or it becomes an F. Assignment of I grades is a faculty prerogative and is issued when the student who has completed the majority of the course requirements is unable to complete the remainder due to unusual or extenuating circumstances. (Does not count in computation of grade point average).
- **WX – Instructor Withdrawal** Faculty withdrawal due to non-attendance. The WX is issued before the class census date and the student is deleted from class(es).
- **P – Pass** A P is an indication that the student has completed the coursework satisfactorily. It is used for 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 WebAdvisor 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)
- **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 (GPA)

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

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

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

Example:

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

Take the total number of grade points (30) and divide by total hours completed (16.5): GPA = 1.82.

Note: Actions of R, P, IW, W, V, Z, and Q do not apply toward GPA but do appear in attempted hours.

Auditing a Course

Students who wish to attend a course without taking examinations or receiving credit for a course may request an audit from an 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.

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-time or part-time status of a student receiving financial aid or veteran's benefits.

Repeat of a Course

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

Process for Grade Appeals

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

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

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

Students who believe there is an inaccuracy in their official academic record (transcript) must notify Records immediately. The transcript is the final, accurate record of academic accomplishment.

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 one quarter (maximum of 24 credit hours) of classes.

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

ACADEMIC AWARDS

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

Associate in Applied Science Degree (AAS)

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

Associate in Arts Degree (AA)

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

Associate in Science Degree (AS)

The associate in science degree is an academic transfer degree awarded to 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 credit hours and a maximum of 110 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 quarter hours and a maximum of 55 quarter hours.

Degree/Certificate Option

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

Specialist Diplomas

Specialist diplomas represent a structured sequence of courses that may be completed in a relatively short period. In some cases, the entire module may be completed in a single quarter of study; in other cases, two or three quarters may be needed because of course prerequisites or other factors.

GRADUATION GUIDELINES

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

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

To graduate with honors, students must earn a cumulative grade point average of 3.50 or above in their program of study. There is a graduation application fee of $25 (non-refundable) per graduation application. There is no fee for a specialist diploma application. Deadlines to file a graduation application are as follows:

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

An annual ceremony to honor graduates and applicants (Fall, Winter, Spring, and Summer) is held in May of each year. Students must meet the Spring quarter graduation deadline to ensure participation in the May graduation ceremony.

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 need to:

- Possess a grade point average of at least 2.0 in all studies that are applicable toward graduation from a program of study and be in good academic standing
- Resolve all College financial obligations and return all library and College materials
- Complete a graduation application form with payment and appropriate signatures and submit it by the application deadline to:
  Metropolitan Community College
  Attn: Records
  P.O. Box 3777
  Omaha, NE 68103-0777
- Successfully complete all program requirements encompassing a minimum of 96 credit hours as outlined in the College catalog. Program requirements include successful completion of a minimum of 24 credit hours in residence at MCC or enrollment in a approved statewide initiative program with MCC designated as the home institution

Certificate of Achievement

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

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

Specialist Diploma

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

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

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 credit hours in graded 1000-level or above classes;
- Complete at least six credit hours in 1000-level or above classes for the term in which they are qualifying; and
- Achieve at least a 3.5 grade point average for the quarter in which they are qualifying.

Students receive notification from the Vice President of Academic Affairs, and the student's name is publicized on the MCC website and sent to select newspapers.

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 a student is not making academic progress, the College may limit enrollment and course selection, if considered necessary. If a student is on probation after an academic suspension or dismissal, the College may establish other special conditions under which the student may enroll, including regular meetings with counselors and advisors, enrollment in developmental courses, participation in career development activities, and completion of assessment tests.

Note: Students receiving financial aid must also comply with the Satisfactory Academic Progress Policy for Financial Aid Recipients. For more information, see Financial Aid on page 16.

Minimum Requirements for Good Academic Standing	
Credit Hours Completed (1000-level and above)	**Minimum Cumulative GPA**
1.0–29.5	1.5
30.0–79.5	1.75
80.0+	2.0

Academic Good Standing: Meeting minimum grade point average for credits hours completed. *Intervention*: None

Academic Probation: Not meeting minimum grade point average for credit hours completed. *Intervention*: A registration hold placed on the student's record. Student must meet with an Academic Advisor or Counselor prior to enrollment. While on probation, the student may have limits placed on the number of credit hours of enrollment and/or course selection.

Academic Suspension: A student on probation who does not earn a grade point average of at least 2.0 in his/her next quarter of enrollment (1000-level courses and above) will be placed on academic suspension. A student on academic suspension will be denied enrollment for a period of one quarter and must apply for readmission and observation status.

Academic Observation: Status when a student returns after suspension or dismissal. *Intervention*: A registration hold placed on the student's record. Any student desiring to enroll after suspension or dismissal will be required to meet with an academic counselor and request readmission through a Student Services director, campus dean or center executive director. If the request is granted, the director or dean will place the student in academic observation status. The director or dean is authorized to impose reasonable restrictions on the student's subsequent enrollment.

If the student earns less than a 2.0 GPA for credits completed while in academic observation status (course 1000-level and above), the student will be placed on academic dismissal.

Academic Dismissal: Dismissal may be permanent. The College reserves the right to deny enrollment to any student on academic dismissal. *Intervention*. A registration hold will be placed on the student's record. Students on academic dismissal will not be allowed to register or attend credit classes for one year. After an absence of one year, the student on dismissal may apply for readmission through a campus dean or center executive director.

MCC Learning Initiatives

DISTANCE EDUCATION

Online Courses

Online courses make it as easy as possible for students to balance commitments of schedule 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) they are enrolled in. MCC's online courses are built upon a tradition of more than 20 years of delivering alternative learning. Online credit courses are equivalent to on-campus courses and maintain the same academic standard in content, assignments, and credit. Every course is managed by a qualified MCC instructor who will provide information, guide students, prompt discussion, help with assignments, answer questions, and grade work. Any student may use the College computers in the Academic Resource Centers, computer labs, or libraries. One-on-one assistance is available to students at the Academic Resource Centers who wish to learn how to take online classes. Additionally, services from the Writing and Math centers are available for online students. Librarians are available by phone and in person to help with resources, including more than 50 online research databases. MCC is fully accredited by the Higher Learning Commission. International students and students for whom English is not their first language must provide a current TOEFL report or take the on-campus Michigan (ESL) assessment. Online courses are only offered in English. If English is not a first language, contact Admissions at (800) 228-9553 ext. 2421 or email intladmissions@mccneb.edu. Admissions will provide guidelines for international students wanting to take online courses.

Hybrid Courses

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

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

Support Services

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

Course Conferencing

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

Community Initiatives

Adult Education

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

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

MCC's English-as-a-Second Language (ESL) program offers both credit and noncredit learning options for students who need to develop their English language proficiency. Both credit and noncredit classes are offered to provide a sequenced program of instruction.

Students who enter the ESL program are required to complete assessment testing to determine appropriate placement into the sequence of courses. To register for assessment testing, students should call Student Services.

Additional information concerning noncredit ESL instruction can be obtained through Adult Education at (402) 457-2312. Information about credit ESL courses can be obtained from the South Omaha Campus Student Services at (402) 738-4505 or the office of the Dean of Foundations for Academic Success and Community Services at (402) 457-2360.

General Education Development (GED)

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

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

The GED examination consists of the following five timed tests:

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

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

Apprenticeship

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

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

Continuing Education

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

Business & Training Services

Business & Training Services (BTS), in partnership with College academic areas, provides career skills training for businesses and nonprofit organizations. Collaborative partnerships are at the heart of the BTS division, which delivers real-world career training to not only the employed but also to the unemployed and underemployed in MCC's community. BTS also works with area businesses to build and facilitate affordable, customized workshops and training programs on-site at the business location, online, or at MCC locations. Specific training areas include business management, customer service, applied technology, interpersonal skills, IT, Spanish/ESL, and leadership development.

Independent Study

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

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

Internship/Co-op Work Experience

MCC's Internship/Cooperative Education program places students in working and learning environments for on-the-job training in their particular field of study before graduation. Students are placed with business, industry, or social services agencies.

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

Interested students should contact the appropriate academic dean for eligibility requirements and application procedures.

Service-Learning and Cooperative Education

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

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

High School Students – Secondary Partnerships

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

CollegeNOW!

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

Career Academy

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 a specific career areas, knowledge of safety procedures, job-seeking skills, interpersonal skills for the workplace, and exposure to a college environment. For more information, visit www.mccneb.edu/secondary or call (402) 457-2213.

Dual Enrollment

Dual enrollment is a college credit program for high school students. MCC has a written contract with a high school to provide college-level courses to qualified high school students. Dual enrollment allows Nebraska high school students to earn both high school and college credit at the same time. 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-price 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 if the course will transfer to the receiving institution.) For more information, visit www.mccneb.edu/secondary or call (402) 457-2213.

Bridge to Success

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

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 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 at education 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 accruing 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 admission process. To learn more about the Gateway to College program, who is eligible, and how to apply, visit www.mccneb.edu/gtc or call (402) 457-2746.

Bright Start

The Bright Start program is a partnership with Omaha Public Schools and the Sherwood Foundation to help identified high school students make the transition to higher education. The Bright Start Transition Specialist works with the high school students to identify their career goals and pursue the education they need to succeed, as well as providing career and financial aid information to students and families. For more information, visit www.mccneb.edu/secondary or call (402) 457-2213.

Advanced Placement Through Articulation

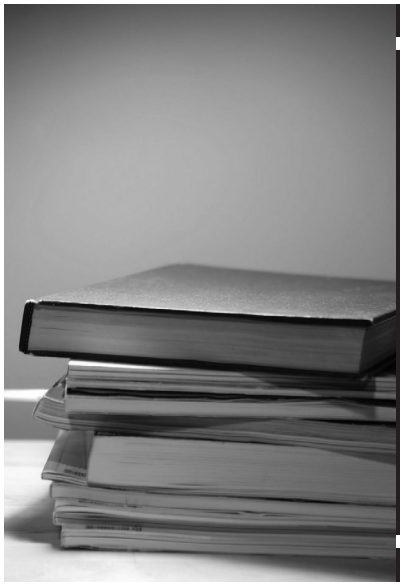
This partnership effort between secondary and postsecondary institutions is designed to prepare high school graduates to continue their postsecondary education in technically oriented careers and to enhance school-to-career transition. When course curriculum at the high school level matches college course curriculum, an articulation agreement is signed that allows for advanced placement into higher-level college courses. A student may be able to receive advanced placement through articulated courses by meeting certain requirements. For more information, visit www.mccneb.edu/secondary or call (402) 457-2213.

High School Articulation

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

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

For more information about high school articulation and how students can take advantage of articulated credit, visit www.mccneb.edu/secondary.



PROGRAMS OF STUDY

Arts

Business/Office

Computing/Electronics

Culinary/Horticulture

Health

Industrial/Technical

Public Service

Transfer Programs

OUTCOMES ASSESSMENT

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

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

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

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

GENERAL EDUCATION RATIONALE

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

- Communication – Effective communicators expresses thoughts, ideas, and feelings in both written and oral modes in order to be successful in their education and professional career. This requires students to develop critical reading, writing, speaking, and listening skills early in their college experience and to have these skills reinforced throughout their program curricula. 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
    - 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
    - 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
    - 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
    - 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
    - Make informed judgments about science-related topics and/or policies
- Social cultural awareness – Social and cultural awareness provides the basis to understand how each person shapes, and is shaped by, culture and society, as well as recognizing and understanding 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
    - 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 that completes a 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 on page 38 of approved general education courses to complete minimum requirements for general education.

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 Course Options

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	9.0 credit hrs.
	27.0 credit hrs.*

Associate in science degrees:

Communications	13.5 credit hrs.
Quantitative/Numeracy Skills	4.5 credit hrs.
Other	9.0 credit hrs.
	27.0 credit hrs.*

Associate in arts degrees:

Communications	13.5 credit hrs.
Quantitative/Numeracy Skills	4.5 credit hrs.
Other	9.0 credit hrs.
	27.0 credit hrs.*

Certificates of achievement:

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

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

COMMUNICATIONS

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

SOCIAL SCIENCES

Economics
ECON 1000
ECON 1100

Geography
GEOG 1010
GEOG 1050
GEOG 2150

History
HIST 1010
HIST 1020
HIST 1050
HIST 1060
HIST 1070
HIST 1110
HIST 1120
HIST 2050
HIST 2200
HIST 2220

Political Science
POLS 2050
POLS 2060
POLS 2070

Psychology
PSYC 1000
PSYC 1010
PSYC 1110
PSYC 1120
PSYC 1130
PSYC 2140
PSYC 2150
PSYC 2350
PSYC 2450
PSYC 2550
PSYC 2650

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

HUMANITIES

Architectural Drafting
ARCH 1000

Art
ARTS 1000
ARTS 1010
ARTS 1110
ARTS 1120

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

French
FREN 1010

German
GERM 1010

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

Japanese
JAPN 1010

Music
MUSC 1010
MUSC 1020
MUSC 1050
MUSC 1110
MUSC 1120

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

Photography
PHOT 1005

Sign Language
SLIS 1010

Spanish
SPAN 1110

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

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

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

NATURAL SCIENCES

Lab courses:

Biology
BIOS 1010
BIOS 1111
BIOS 1310

Chemistry
CHEM 1010
CHEM 1210

Geography
GEOG 1150
GEOG 1160
GEOG 1210

Physics
PHYS 1010

Science
SCIE 1010
SCIE 1300/1310

QUANTITATIVE/NUMERACY SKILLS

MATH 1220
MATH 1240
MATH 1260
MATH 1310

OTHER

Information Systems and Literacy
INFO 1001

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

Program Grid

METROPOLITAN COMMUNITY COLLEGE PROGRAMS BY DEPARTMENT		
Academic Program (Major Code)	**Awards Offered**	**Locations Offered**
Arts (pgs. 43–66)		
Art (ARTAA) pgs. 44–46	Associate Degree Certificate	EVC
Electronic Imaging and Media Arts (EIAS3) pgs. 47–48	Associate Degree	EVC
Graphic Communication Arts and Design (GCAS1) pgs. 49–50	Associate Degree	EVC, FOC
Interior Design (IDAS1) pgs. 51–53	Associate Degree Certificate	EVC
Photography – General (PTAS2) pgs. 54–55	Associate Degree Certificate	EVC
Theatre (THEAA/THECE) pgs. 56–60	Associate Degree Certificate Specialist Diploma	EVC, FOC, SOC
Video/Audio Communications Arts (VAAAS) pgs. 61–66	Associates Degree Certificate Specialist Diploma	EVC
Business/Office Careers (pgs. 67–110)		
Accounting (ACAAS) pgs. 68–69	Associate Degree	EVC, FOC, SOC
Bookkeeping (BKPCE) pg. 70	Certificate	EVC, FOC, SOC, SRP, online
Business Management (BMAAS) pgs. 71–86	Associate Degree Certificate Specialist Diploma	EVC, FOC, SOC, SRP, online
Business Transfer (BSTAA) pgs. 87–88	Associate Degree	EVC, FOC, SOC, SRP, online
Financial Planning (BMPC1) pg. 89	Certificate	EVC, FOC, SRP, online
Health Information Management Systems (HIMAS) pgs. 90–93	Associate Degree	EVC, FOC, SOC, SRP, online
Legal Studies (LAAS3) pg. 94–99	Associate Degree Certificate	SOC
Medical Office (MOPC1) pgs. 100–103	Certificate	EVC, FOC, FRC, SOC, SRP, online
Microcomputer Office Basics (MOBSD) pg. 104	Specialist Diploma	FOC, SOC
Microcomputer Office Technology (OSTC1) pgs. 105–107	Certificate	FOC, SOC, online
Office Technology (OTAAS) pgs. 108–110	Associate Degree	FOC, SOC, online

For options within a program area, see the specific program pages (pgs. 43–291).

METROPOLITAN COMMUNITY COLLEGE PROGRAMS BY DEPARTMENT		
Academic Program (Major Code)	**Awards Offered**	**Locations Offered**
Computing/Electronics (pgs. 111–152)		
Call Center Specialist (CCSCE) pgs. 112–113	Certificate Specialist Diploma	FOC
Computer Technology Transfer – Computer Science (CTSAS) pg. 114	Associate Degree	
Computer Technology Transfer – Information Assurance (CTIAS) pg. 115	Associate Degree	FOC, SOC, SRP
Computer Technology Transfer – Management Information Systems (CTMAS) pg. 116	Associate Degree	FOC, SOC, SRP
Database Systems (DBSCE) pg. 117	Certificate	FOC, online
Electronics Technology (ETAAS) pgs. 118–124	Associate Degree Certificate Specialist Diploma	SOC
Embedded Systems Technology (ETSAS) pgs. 125–126	Associate Degree	FOC, SOC, SRP, online
General Information Technology (GITAS) pgs. 127–128	Associate Degree	FOC, SOC, SRP, online
Health Information Technology HITSD) pg. 129	Specialist Diploma	online
IBM i Systems (CASC2) pg. 130	Certificate	FOC, SOC, SRP, online
Information Technology (INTAS) pgs. 131–142	Associate Degree Specialist Diploma	EVC, FOC, SOC, online
Medical Records Technician (MRTSD) pg. 143	Specialist Diploma	online
Microcomputer Technology (MCTCE) pgs. 144–150	Certificate Specialist Diploma	FOC, SOC, SRP, online
Oracle Database Systems (ODBCE) pg. 151	Certificate	FOC
UNIX/Linux Operating Systems (LNXCE) pg. 152	Certificate	FOC
Culinary/Horticulture (pgs. 153–172)		
Culinary Arts and Management (CAAS1) pgs. 154–161	Associate Degree Certificate Specialist Diploma	FOC
Hospitality and Restaurant Leadership (CHRAS) pgs. 162–163	Associate Degree	FOC
Horticulture (HOAAS) pgs. 164–172	Associate Degree Certificate Specialist Diploma	FOC
Health (pgs. 173–184)		
Dental Assisting (DEACE) pgs. 174–175	Certificate	SOC
Nursing – Associate Degree (ASNAS) pgs. 176, 178	Associate Degree	SOC
Nursing – Practical (LPNCE) pgs. 177–178	Certificate	SOC
Professional Health Studies (PHSAS) pgs. 179–182	Associate Degree Certificate	SOC
Respiratory Care Technology (RTAAS) pgs. 183–184	Associate Degree	SOC

For options within a program area, see the specific program pages (pgs. 43–291).

METROPOLITAN COMMUNITY COLLEGE PROGRAMS BY DEPARTMENT		
Academic Program (Major Code)	**Awards Offered**	**Locations Offered**
Industrial/Technical (pgs. 185–253)		
Air Conditioning, Refrigeration, and Heating Technology (AHAAS) pgs. 186–189	Associate Degree Certificate Specialist Diploma	EVC
Architectural Design Technology (ADAS1) pgs. 190–191	Associate Degree Specialist Diploma	EVC
Auto Collision Technology (ABAS1) pgs. 192–194	Associate Degree Certificate Specialist Diploma	ATC
Automotive Technology (AUAAS) pgs. 195–197	Associate Degree Certificate Specialist Diploma	SOC
CDL-A Truck Driving (CDLSD) pg. 219	Specialist Diploma	ATC
Civil Engineering Technology (CEAS1) pgs. 198–202	Associate Degree Certificate	EVC
Construction Technology (CSAAS) pg. 203–214	Associate Degree Specialist Diploma	ATC, SOC
Diesel Technology (DTAAS) pgs. 215–219	Associate Degree Specialist Diploma	ATC
Electrical Apprenticeship (AREAO) pg. 220	Associate Degree	SOC
Electrical Technology (ETAAS) pgs. 221–225	Associate Degree Certificate Specialist Diploma	SOC
Industrial and Commercial Trades (IMAS1) pg. 226–235	Associate Degree Specialist Diploma	SOC
Mechanical Design Technology (DRAS1) pgs. 236–240	Associate Degree Certificate Specialist Diploma	FOC
Plumbing Apprenticeship(ARPAO) pg. 241	Associate Degree	SOC
Process Operations Technology (PROAS) pg. 242	Associate Degree	WCC
Sustainable Energy Technology (SETSD) pg. 243	Specialist Diploma	SOC
Utility Line Technician (UTAAS) pgs. 244–245	Associate Degree	ATC
Welding Technology (WEAAS) pgs. 246–253	Associate Degree Certificate Specialist Diploma	SOC

For options within a program area, see the specific program pages (pgs. 43–291).

METROPOLITAN COMMUNITY COLLEGE PROGRAMS BY DEPARTMENT		
Academic Program (Major Code)	**Awards Offered**	**Locations Offered**
Public Service (pgs. 255–275)		
American Sign Language – Pre-Interpreter (SLICE) pg. 256	Certificate	FOC
Criminal Justice (CJAAS) pgs. 257–258	Associate Degree Specialist Diploma	SOC, online
Early Childhood Educator (ECAS1) pgs. 260–264	Associate Degree Certificate Specialist Diploma	FOC, online
Fire Science Technology (FSAAS) pg. 265–266	Associate Degree	SOC
Human Services (HSAAS) pgs. 266–269	Associate Degree Certificate	FOC
Human Services – Chemical Dependency Counseling (CDAAS) pgs. 270–272	Associate Degree Certificate	FOC
Language Interpretation (LGICE) pg. 273	Certificate	online
Transfer Programs (pgs. 275–291)		
Customer Service Representative (PSCSD) pg. 291	Specialist Diploma	EVC, FOC, SOC
General Studies (GSAAS) pgs. 289–290	Associate Degree	EVC, FOC, SOC
Liberal Arts/Academic Transfer [Associate in Arts] (LATAA) and A-to-B Agreements pgs. 281–282	Associate Degree	EVC, FOC, SOC, online
Liberal Arts/Academic Transfer [Associate in Science] (LATAS) and A-to-B Agreements pgs. 286–287	Associate Degree	EVC, FOC, SOC
Liberal Arts/Academic Transfer – Humanities/Social Sciences (LHSCE) pg. 283	Certificate	EVC, FOC, SOC, online
Liberal Arts/Academic Transfer – Math/Science (LMSCE) pg. 288	Certificate	EVC, FOC, SOC, online
Liberal Arts/Academic Transfer – Spanish (LTSAA) pg. 284–285	Associate Degree Specialist Diploma	EVC, FOC, SOC,
Professional Skills (PSKSD) pg. 291	Specialist Diploma	EVC, FOC, SOC
Project Management (PSPSD) pg. 291	Specialist Diploma	EVC, FOC, SOC

For options within a program area, see the specific program pages (pgs. 43–291).

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

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

ARTS

DEGREES IN THIS SECTION:

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

OTHER RELATED DEGREES:

- Microcomputer Technology – Web Support Specialist
  (see *Computing/Electronics Careers*)
- Liberal Arts/Academic Transfer – Associate in Arts – Art Education
  (see *Transfer Programs*)

Art (ARTAA)

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

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

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

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

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
ENGL 1010 English Composition I	4.5	Humanities/Social Sciences (see page 38)	4.5
ENGL 1020 English Composition II	4.5	*ARTS 1000 is recommended.*	
SPCH 1110 Public Speaking	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1310 Intermediate Algebra	4.5	HMRL 1010 Human Relations Skills	4.5
		INFO 1001 Information Systems and Literacy	4.5

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

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

Courses		Credit Hrs.
ARTS 1010	Drawing and 2-D Design I	4.5
ARTS 1020	Drawing and 2-D Design II	4.5
ARTS 1030	3-D Studio	4.5
ARTS 1040	4-D Studio	4.5
ARTS 1110	Art History – Ancient to Gothic	4.5
ARTS 1120	Art History – Renaissance to Modern	4.5
ARTS 2010	Life Drawing	4.5
ARTS 2020	Elementary Painting☞	4.5
ARTS 2030	Elementary Sculpture☞	4.5
EIMA 1100	Raster Image Painting☞	4.5
Choose 22.5 credit hours from the following Visual Arts courses:		
ARTS 2025	Watercolor	4.5
ARTS 2040	Elementary Printmaking☞	4.5
ARTS 2050	Elementary Ceramics^	4.5
ARTS 2060	Elementary Jewelry☞	4.5
ARTS 2120	Intermediate Painting☞	4.5
ARTS 2130	Intermediate Sculpture☞	4.5
ARTS 2150	Intermediate Ceramics^	4.5
ARTS 2160	Intermediate Jewelry☞	4.5
ARTS 2220	Art Gallery Management☞	4.5
ARTS 2900	Special Topics in Art	4.5
EIMA course of choice☞		
GCAD course of choice		
PHOT course of choice☞		

☞These courses are only at the Elkhorn Valley Campus.

^This course is at Omaha Clay Works.

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

Continued...

Below is a schedule of course offerings for students planning to transfer to a four-year institution after two years of full-time study.

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

Art (ARTCE)

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus

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

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

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

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

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

Courses		Credit Hrs.
ARTS 1010	Drawing and 2-D Design I	4.5
ARTS 1020	Drawing and 2-D Design II	4.5
ARTS 1030	3-D Studio	4.5
ARTS 1040	4-D Studio☞	4.5
ARTS 1110	Art History – Ancient to Gothic **OR**	
ARTS 1120	Art History – Renaissance to Modern	4.5
ARTS 2020	Elementary Painting☞	4.5
ARTS 2030	Elementary Sculpture☞	4.5
Choose 9.0 credit hours from the following Visual Arts courses:		
ARTS 2010	Life Drawing	4.5
ARTS 2025	Watercolor	4.5
ARTS 2040	Elementary Printmaking	4.5
ARTS 2050	Elementary Ceramics^	4.5
ARTS 2060	Elementary Jewelry	4.5
ARTS 2130	Intermediate Sculpture	4.5
ARTS 2150	Intermediate Ceramics	4.5
ARTS 2160	Intermediate Jewelry	4.5
ARTS 2220	Art Gallery Management	4.5

☞These courses are only at the Elkhorn Valley Campus.

^This course is at Omaha Clay Works.

Electronic Imaging and Media Arts (EIAS3)

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

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

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

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

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

ARTS

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

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
ENGL 1010 English Composition I	4.5	Humanities/Social Sciences (see page 38)	4.5
ENGL 1020 English Composition II	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
Mathematics (See page 38)	4.5	HMRL 1010 Human Relations Skills	4.5
		INFO 1001 Information Systems and Literacy	4.5

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

Courses		Credit Hrs.
Tier I – Students must take all courses		
ARTS 1010	Drawing and 2-D Design I	4.5
ARTS 1020	Drawing and 2-D Design II	4.5
ARTS 1110	Art History – Ancient to Gothic **OR**	
ARTS 1120	Art History – Renaissance to Modern	4.5
EIMA 1100	Raster Image Painting	4.5
EIMA 1110	Vector Image Drawing	4.5
EIMA 1120	Character, Narrative, and Storyboard Development	4.5
EIMA 1130	Web Media I	4.5
EIMA 1140	Drawing for Electronic Media	4.5
EIMA 1310	Introduction to 3-D Modeling and Animation	4.5
EIMA 2410	Projects Development	4.5
PHOT 1025	Digital Photography	6.0

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

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

Students interested in an electronic imaging and media arts specialization should consult with faculty advisors or Student Services when planning their studies.

Continued...

Tier II – Select 13.5–22.5 hours from the following:			*It is advisable to take EIMA 1100 or EIMA 1110 before EIMA 1310 or to have computer experience. Geometry is also helpful.*
ARTS 2010	Life Drawing	4.5	
EIMA 1111	History of Animation	4.5	
EIMA 1150	Design for Motion Graphics	4.5	
EIMA 1210	Flash I	4.5	
EIMA 1221	Game Design Fundamentals	4.5	
EIMA 1230	2-D Animation and Compositing I	4.5	
EIMA 1231	2-D Animation and Compositing II	4.5	
EIMA 2130	Web Media II	4.5	
EIMA 2210	Flash II	4.5	
EIMA 2221	Introduction to 3-D Game Development	4.5	
EIMA 2311	3-D Character Development	4.5	
EIMA 2321	Intermediate 3-D Modeling and Animation	4.5	
EIMA 2330	3-D Animation Lab	4.5	
GCAD 1110	Typography I	4.5	
Tier III – Select 0.0–9.0 credit hours from the following:			*Visit MCC's website for the most current transfer listings at www.mccneb.edu/articulation.*
ARTS 1030	3-D Studio	4.5	
ARTS 1040	4-D Studio	4.5	
ARTS 2020	Elementary Painting	4.5	
ARTS 2030	Elementary Sculpture	4.5	
EIMA 2120	Electronic Illustration	4.5	
EIMA 2900	Special Topics in EIMA	Variable	
EIMA 2981	Internship	Variable	
GCAD 1120	Layout I	4.5	
PHOT 1500	Moving Image Lab	6.0	
PHOT 2025	Intermediate Digital Photography	6.0	
VACA 1020	Audio I	3.0	
VACA 1130	Video I	3.0	
VACA 2220	Digital Media Editing	4.5	

Below is a suggested guide for students planning a career in electronic imaging after two years of full-time study.

FIRST YEAR – CORE TIER I			
First Quarter (Fall)	**Second Quarter (Winter)**	**Third Quarter (Spring)**	**Fourth Quarter (Summer)**
ARTS 1010 4.5	ARTS 1020 4.5	EIMA 1120 4.5	
ARTS 1110 **OR**	EIMA 1112 4.5	EIMA 1130 4.5	
ARTS 1120 4.5	EIMA 1310 4.5	PHOT 1025 6.0	
EIMA 1100 4.5	Gen. Ed. 4.5	EIMA Tier II 4.5	
EIMA 1110 4.5	18.0	19.5	
18.0			
SECOND YEAR – OPTION I (CHOOSING TO TAKE ALL COURSES FROM TIER II)			
Fifth Quarter (Fall)	**Sixth Quarter (Winter)**	**Seventh Quarter (Spring)**	**Eighth Quarter (Summer)**
Gen. Ed. 4.5	Gen. Ed. 4.5	EIMA 2410 4.5	
Gen. Ed. 4.5	Gen. Ed. 4.5	Gen. Ed. 4.5	
EIMA Tier II 4.5	EIMA Tier II 4.5	9.0	
EIMA Tier II 4.5	EIMA Tier II 4.5		
18.0	18.0		
SECOND YEAR – Option II (choosing to take all additional courses from both Tier II and Tier III)			
Fifth Quarter (Fall)	**Sixth Quarter (Winter)**	**Seventh Quarter (Spring)**	**Eighth Quarter (Summer)**
Gen. Ed. 4.5	Gen. Ed. 4.5	EIMA 2410 4.5	
Gen. Ed. 4.5	Gen. Ed. 4.5	Gen. Ed. 4.5	
EIMA Tier II 4.5	EIMA Tier II **OR**	9.0	
EIMA Tier II **OR**	EIMA Tier III 9.0		
EIMA Tier III 4.5	18.0		
18.0			

Graphic Communication Arts and Design (GCAS1)

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

The Graphic Communication Arts and Design program provides students with creative problem-solving skills in the communication of visual ideas. Graduates are prepared for employment as a graphic designer in advertising agencies, design studios, in-house design departments, and printing establishments..

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

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

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	ARTS 1120 Art History – Renaissance to Modern	4.5
English Level II (see page 38)	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
Mathematics (see page 38) *MATH 1220 is suggested unless transferring to a four-year institution.*	4.5	HMRL 1010 Human Relations Skills INFO 1001 Information Systems and Literacy	4.5 4.5

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

Courses		Credit Hrs.
ARTS 1010	Drawing and 2-D Design I	4.5
ARTS 1020	Drawing and 2-D Design II	4.5
GCAD 1010	Concept Development	4.5
GCAD 1020	Introduction to Computer Methods	4.5
GCAD 1110	Typography I	4.5
GCAD 1120	Layout	4.5
GCAD 1210	History of Graphic Design	4.5
GCAD 1310	Web Design	4.5
GCAD 1520	Desktop Publishing Basics – InDesign	4.5
GCAD 2050	Package Design	4.5
GCAD 2060	Illustration	4.5
GCAD 2140	Publication Design	4.5
GCAD 2210	Graphic Design I	4.5
GCAD 2220	Graphic Design II	4.5
GCAD 2230	Graphic Design III	6.0
Work in advance with an instructor to choose one of the following:		
GCAD 1500	Print Overview	4.5
GCAD 2110	Typography II	4.5
INFO 1311	XHTML and CSS ◇	4.5

Students should work with faculty to determine which electives best meet their career goals.

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

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

◇Additional prerequisite(s) may be required.

Continued...

Below is suggested guide for students planning a career in graphic communication arts and design after two years of full-time study.

FIRST YEAR							
First Quarter (Fall)		**Second Quarter (Winter)**		**Third Quarter (Spring)**		**Fourth Quarter (Summer)**	
ARTS 1010	4.5	ARTS 1020	4.5	Gen. Ed.	4.5		
GCAD 1010	4.5	GCAD 1110	4.5	ARTS 1120	4.5		
GCAD 1020	4.5	GCAD 1520	4.5	GCAD 1120	4.5		
INFO 1001	4.5	HMRL 1010	4.5	GCAD 1310	4.5		
	18.0		18.0		18.0		
SECOND YEAR							
Fifth Quarter (Fall)		**Sixth Quarter (Winter)**		**Seventh Quarter (Spring)**		**Eighth Quarter (Summer)**	
Gen. Ed.	4.5	Gen. Ed.	4.5	Elective	4.5		
GCAD 1210	4.5	GCAD 2050	4.5	GCAD 2060	4.5		
GCAD 2210	4.5	GCAD 2140	4.5	GCAD 2230	6.0		
	13.5	GCAD 2220	4.5		15.0		
			18.0				

Continued...

Interior Design (IDAS1)

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

The Interior Design program provides students with aesthetic design knowledge and skills and a practical knowledge of retail and business procedures in the area of interior product and services. Job opportunities include positions as interior design assistants and consultants and sales personnel for local interior product retailers and vendors. All INTD prefix courses, with the exception of INTD 2981, transfer to the University of Nebraska–Kearney's Interior Design program. Ask an advisor for details.

GRADUATION REQUIREMENTS	
General Education	27.0
Major Requirements	73.0
Total Credit Hours Required	**100.0**

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

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	ARTS 1000 Introduction to the Visual Arts	4.5
English Level II (see page 38)	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1220 Business Mathematics **OR**		HMRL 1010 Human Relations Skills	4.5
MATH 1260 Geometry **OR**	4.5	INFO 1001 Information Systems and Literacy	4.5
Any higher level MATH course			

Major Requirements for Interior Design ..... 73.0 Credit Hrs.

Courses		Credit Hrs.
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
Choose 18.0 credit hours from the following related disciplines:		
ACCT 1050	Bookkeeping **OR**	
ACCT 1100	Accounting I	3.0– 4.0
ARCH 1100	Beginning AutoCAD (highly recommended)	4.5
ARCH 1110	Intermediate AutoCAD	4.5
ARTS 1010	Drawing and 2-D Design I	4.5
ARTS 1110	Art History – Ancient to Gothic	4.5
ARTS 1120	Art History – Renaissance to Modern	4.5
INTD 2900	Special Topics in Interior Design★	Variable
BSAD 1000	Introduction to Business **OR**	
ENTR 1050	Introduction to Entrepreneurship	4.5
BSAD 1200	Principles of Selling	4.5
ENTR 2050	Marketing for the Entrepreneur	4.5
ENTR 2060	Legal Issues for the Entrepreneur	4.5
ENTR 2070	Financial Topics for the Entrepreneur	4.5

★ 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.

Continued...

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

FIRST YEAR			
First Quarter	**Second Quarter**	**Third Quarter**	**Fourth Quarter**
INTD 1100 3.0	English Level I 4.5	English Level II 4.5	
INTD 1210 4.5	INFO 1001 4.5	INTD 1230 3.0	
INTD 1310 4.5	INTD 1220 4.5	INTD 1260 4.5	
MATH course 4.5	INTD 1320 4.5	Related discipline 4.5	
16.5	18.0	16.5	
SECOND YEAR			
Fifth Quarter	**Sixth Quarter**	**Seventh Quarter**	**Eighth Quarter**
INTD 1410 4.5	HMRL 1010 4.5	INTD 2520 3.0	
INTD 2100 4.5	INTD 1420 4.5	INTD 2940 3.0	
Related discipline 9.0	INTD 2250 4.0	INTD 2981 3.0	
18.0	Related discipline 4.5	Humanities/	
	17.5	Social Sciences Elective 4.5	
		13.5	

Interior Design Entrepreneurship (IENCE)

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus

This certificate is designed for practicing design professionals who are interested in becoming self-employed.

GRADUATION REQUIREMENTS	
General Education	13.5
Major Requirements	37.0–38.5
Total Credit Hours Required	**50.5–52.0**

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

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
ENGL 1010 English Composition I	4.5	ARTS 1000 Introduction to the Visual Arts	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
Mathematics (see page 38)	4.5		

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

Courses		Credit Hrs.
ENTR 1050	Introduction to Entrepreneurship	4.5
ENTR 2040	Entrepreneurship Feasibility Study	4.5
ENTR 2090	Entrepreneurship Business Plan	4.5
INTD 1230	Interior Design III ◇	3.0
INTD 2100	Room Rendering ◇	4.5
INTD 2250	Commercial Design ◇	4.0
Choose three courses from the following list:		
ARCH 1100	Beginning AutoCAD	4.5
ARCH 1110	Intermediate AutoCAD	4.5
ENTR 2050	Marketing for the Entrepreneur	4.5
ENTR 2060	Legal Issues for the Entrepreneur	4.5
ENTR 2070	Financial Topics for the Entrepreneur	4.5
INTD 2520	Professional Practice ◇	3.0

◇Additional prerequisite(s) may be required.

Photography – General Commercial (PTAS2)

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

Students in the Photography – General Commercial program learns 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 should be adaptable to the following employment situations: commercial or portrait studio, industrial photo unit, hospital or research laboratory, news photography for a newspaper or television station, photo-finishing laboratory or digital imaging services, manufacturer's technical representative, or retail photo sales. Classes in this program transfer to the University of Nebraska–Omaha, University of Nebraska–Lincoln, and Bellevue University.

GRADUATION REQUIREMENTS	
General Education	27.0
Major Requirements	82.5
Total Credit Hours Required	**109.5**

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

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
ENGL 1010 English Composition I	4.5	Humanities/Social Sciences (see page 38)	4.5
ENGL 1020 English Composition II	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
Mathematics (see page 38)	4.5	HMRL 1010 Human Relations Skills	4.5
		INFO 1001 Information Systems and Literacy	4.5

Major Requirements for Photography – General Commercial .....82.5 Credit Hrs.

Courses		Credit Hrs.
ARTS 1010	Drawing and 2-D Design I	4.5
PHOT 1005	Basic Photography I – Digital	6.0
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 Practice	6.0
PHOT 2560	Portfolio Development and Professional Practice	6.0
Choose 18.0 credit hours from the following courses:		
ARTS 1020	Drawing and 2-D Design II	4.5
ARTS 1030	3-D Studio	4.5
ARTS 2220	Art Gallery Management	4.5
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
VACA 1130	Video I	4.5
VACA 2130	Video II ◈	4.5

Students should work with faculty to select courses from the lower list that meet their career goals.

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

◈ Additional prerequisite(s) may be required.

Photography – General Still (PTYC1)

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus

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

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

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

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
ENGL 1010 English Composition I	4.5	Humanities/Social Sciences (see page 38)	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
MATH 1240 Applied Mathematics	4.5		

Major Requirements for Photography – General Still .....34.5 Credit Hrs.

Courses		Credit Hrs.
ARTS 1010	Drawing and 2-D Design I	4.5
PHOT 1005	Basic Photography I – Digital	6.0
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

Students should work with faculty to select courses from the list that meet their career goals.

ARTS

Theatre (THEAA)

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

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

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

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

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
ENGL 1010 English Composition I	4.5	Humanities/Social Sciences (see page 38)	4.5
ENGL 1020 English Composition II	4.5		
SPCH 1110 Public Speaking	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1310 Intermediate Algebra	4.5	HMRL 1010 Human Relations Skills	4.5
		INFO 1001 Information Systems and Literacy	4.5

Continued...

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

Courses		Credit Hrs.
THEA 1000	Introduction to Theatre	4.5
THEA 1110	Theatre Technology I	4.0
THEA 2010	Script Analysis	4.5
THEA 2020	Fundamentals of Acting I	4.5
THEA 2021	Fundamentals of Acting II	4.5
THEA 2030	Playwriting I	4.5
THEA 2110	Theatre History I	4.5
THEA 2120	Theatre History II	4.5
THEA 2480	Introduction to Dramatic Literature I	4.5
THEA 2481	Introduction to Dramatic Literature II	4.5
Select 9.0 credit hours from the following:		
THEA 1120	Theatre Technology II	4.0
THEA 1130	Theatre Technology III	4.0
THEA 2040	Movement for the Actor	4.5
THEA 2050	Voice for the Actor	4.5
THEA 2150	Stage Rigging	4.5
THEA 2160	Principles of Stage Lighting	4.5
THEA 2170	Stage Management	4.5
THEA 2200	Arts Administration	4.5
THEA 2900 **OR**		
THEA 2901 **OR**		
THEA 2920		Variable
Select 15.0 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

Continued...

Theatre – Playwriting (THEPC)

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

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

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

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

Communications	**Credit Hrs.**	**Humanities**	**Credit Hrs.**
ENGL 1010 English Composition I	4.5	Humanities/Social Sciences Elective (See page 38)	4.5
ENGL 1020 English Composition II	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**		
Mathematics (See page 38)	4.5		

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

Courses		**Credit Hrs.**
ENGL 1310	Creative Writing	4.5
ENGL 2480	Introduction to Dramatic Literature I **OR**	
THEA 2480	Introduction to Dramatic Literature I **OR**	
ENGL 2481	Introduction to Dramatic Literature II **OR**	
THEA 2481	Introduction to Dramatic Literature II	4.5
THEA 2010	Script Analysis	4.5
THEA 2020	Fundamentals of Acting I	4.5
THEA 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 – Theatre Technology (THETC)

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

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

*The Theatre Technology Apprenticeship program is a two-year program run in conjunction with the Omaha Community Playhouse. In order to satisfy the 1500-hour requirement to receive the Theatre Technology Apprenticeship Program Certificate from the U.S. Department of Labor, students are required to complete an additional 12.0 credit hours of cooperative study courses (THEA 2983–2986) beyond the MCC Certificate of Achievement.

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

ARTS

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

Communications	**Credit Hrs.**	**Quantitative/Numeracy Skills**	**Credit Hrs.**
English Level I (See page 38)	4.5	Mathematics (See page 38)	4.5
Humanities	**Credit Hrs.**		
Humanities (See page 38)	4.5		

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

Courses		**Credit Hrs.**
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 **OR**	
THEA 2900	Special Topics: Properties and Costumes	4.5
THEA 2160	Principles of Stage Lighting	4.5
THEA 2981	Cooperative Study I	3.0
THEA 2982	Cooperative Study II	3.0

Theatre – Specialist Diplomas

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

Playwriting (THEPD)

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

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

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

Theatre Technology (THETD)

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

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

Courses		Credit Hrs.
THEA 1110	Theatre Technology I	4.0
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	3.0
THEA 2982	Cooperative Study II	3.0
THEA 2983	Cooperative Study III	3.0

Video/Audio Communications Arts (VAAAS)

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

The Video/Audio Communications Arts program 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–Omaha College of Fine Arts and Bellevue University.

GRADUATION REQUIREMENTS	
General Education	27.0
Major Requirements	78.0
Total Credit Hours Required	**105.0**

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

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
ENGL 1010 English Composition I	4.5	Humanities/Social Sciences (see page 38)	4.5
ENGL 1020 English Composition II	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
Mathematics (see page 38)	4.5	HMRL 1010 Human Relations Skills	4.5
		INFO 1001 Information Systems and Literacy	4.5

ARTS

Major Requirements for Video/Audio Communication Arts .....78.0 Credit Hrs.

Courses		Credit Hrs.
ARTS 1010	Drawing and 2-D Design I	4.5
EIMA 1150	Design for Motion Graphics	4.5
PHOT 1005	Basic Photography I – Digital	6.0
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	4.5
VACA 2120	Screenwriting Principles	4.5
VACA 2130	Video II	4.5
VACA 2131	Video III	4.5
VACA 2220	Digital Media Editing	4.5
VACA 2540	Video Portfolio Development	3.0
VACA 2940	MetroVision Practicum **OR**	
VACA 2981	Internship	Variable
Choose 9.0 credit hours from the following courses:		
ARTS 1020	Drawing and 2-D Design II	4.5
EIMA 1120	Character, Narrative, and Storyboard Development	4.5
HUMS 2310	Film History and Appreciation	4.5
PHOT 1540	Photojournalism	6.0
PHOT 2025	Intermediate Digital Photography	6.0
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 2230	Video Post-Production	4.5
VACA 2900	Special Topics in Video	Variable

Video/Audio Communications Arts (VACCE)

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus

The Video/Audio Communications Arts 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	13.5
Major Requirements	42.0
Total Credit Hours Required	**55.5**

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

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
ENGL 1010 English Composition I	4.5	Humanities/Social Sciences (see page 38)	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
MATH 1240 Applied Mathematics	4.5		

Major Requirements for Video/Audio Communications Arts .....42.0 Credit Hrs.

Courses		Credit Hrs.
PHOT 1500	Moving Image Lab	6.0
VACA 1110	Introduction to Scriptwriting	4.5
VACA 1130	Video I	4.5
VACA 2130	Video II	4.5
VACA 2131	Video III	4.5
VACA 2220	Digital Media Editing	4.5
Choose 13.5 credit hours from the following courses:		
EIMA 1120	Character, Narrative, and Storyboard Development	4.5
EIMA 1150	Design for Motion Graphics	4.5
VACA 1010	Audio and Video Production Engineering	4.5
VACA 1020	Audio I	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 Photography	Variable
VACA 2940	MetroVision Practicum	3.0
VACA 2981	Internship	Variable

Students should work with faculty to select courses from the list that meet their career goals.

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

◇ Additional prerequisite(s) may be required.

Video/Audio Communications Arts – Digital Cinema (VDCCE)

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus

The Digital Cinema 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
Total Credit Hours Required	**54.0**

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

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

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

Courses		**Credit Hrs.**
PHOT 1500	Moving Image Lab	6.0
VACA 1020	Audio I	4.5
VACA 1110	Introduction to Scriptwriting	4.5
VACA 2120	Principles of Screenwriting	4.5
VACA 2130	Video II	4.5
VACA 2131	Video III	4.5
VACA 2220	Digital Media Editing	4.5
VACA 2940	MetroVision Practicum	3.0
Choose 4.5 credit hours from the following courses:		
EIMA 1120	Character, Narrative, and Storyboard Development	4.5
EIMA 1150	Design for Motion Graphics	4.5
EIMA 1310	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	4.5
VACA 1010	Audio and Video Production Engineering	4.5
VACA 1130	Video I	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 Communications	Variable

Video/Audio Communications Arts – Screenwriting (VACSE)

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus

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

GRADUATION REQUIREMENTS	
General Education	18.0
Major Requirements	37.5
Total Credit Hours Required	**55.5**

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

Communications		**Credit Hrs.**	**Humanities**	**Credit Hrs.**
ENGL 1010	English Composition I	4.5	Humanities (See page 38)	4.5
ENGL 1020	English Composition II	4.5		
Quantitative/Numeracy Skills		**Credit Hrs.**		
Mathemathics (See page 38)		4.5		

Major Requirements for Video/Audio Communications Arts – Screenwriting.....37.5 Credit Hrs.

Courses		**Credit Hrs.**
ENGL 1310	Creative Writing	4.5
ENGL 2480	Introduction to Dramatic Literature I	4.5
HUMS 2310	Film History and Appreciation	4.5
PHOT 1500	Moving Image Lab	6.0
THEA 2010	Script Analysis	4.5
THEA 2020	Fundamentals of Acting	4.5
VACA 1110	Introduction to Scriptwriting	4.5
VACA 2120	Screenwriting Principles	4.5

Video/Audio Communications Arts – Sound Recording (VSRCE)

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus

The Sound Recording 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.

GRADUATION REQUIREMENTS	
General Education	13.5
Major Requirements	42.0
Total Credit Hours Required	**55.5**

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

Communications	**Credit Hrs.**	**Humanities/Social Sciences**	**Credit Hrs.**
ENGL 1010 English Composition I	4.5	Humanities/Social Sciences (see page 38)	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
MATH 1240 Applied Mathematics	4.5		

Major Requirements for Video/Audio Communications Arts –Sound Recording .....42.0 Credit Hrs.

Courses		**Credit Hrs.**
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
VACA 2050	Pro-Tools	4.5
VACA 2060	Audio MIxing and Summing	4.5
VACA 2070	Modern Recording Techniques	4.5
VACA 2981	Internship	Variable

Student should work with faculty to select courses from the list that meet their career goals.

Video/Audio Communications Arts – Specialist Diploma

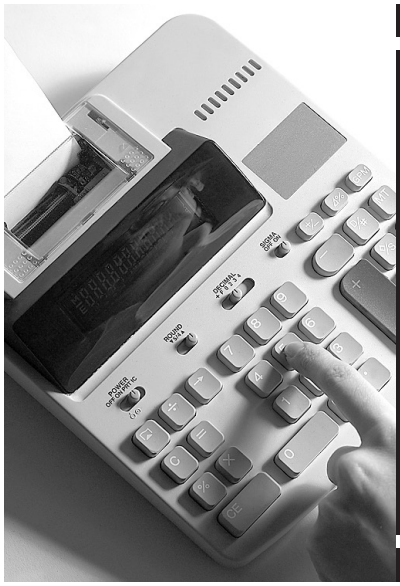
Award: Specialist Diploma
Program location: Elkhorn Valley Campus

Screenwriting (VACSD)

Needs description

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

Courses		Credit Hrs.
ENGL 1010	English Composition I	4.5
ENGL 2480	Introduction to Dramatic Literature I	4.5
THEA 2010	Script Analysis	4.5
THEA 2020	Fundamentals of Acting	4.5
VACA 1110	Introduction to Scriptwriting	4.5
VACA 2120	Screenwriting Principles	4.5



BUSINESS/ OFFICE

DEGREES IN THIS SECTION:

- Accounting
- Bookkeeping
- Business Management
- Business Transfer
- Entrepreneurship
- Health Information Management Systems
- Financial Services
- Legal Studies
- Medical Office
- Microcomputer Office Technology
- Office Technology
- Registered Health Information Technologist

OTHER RELATED DEGREES:

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

Accounting (ACAAS)

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

The Accounting curriculum aids students in developing skills, knowledge, and aptitudes necessary to seek employment in paraprofessional accounting positions. The program encompasses a broad range of accounting, business topics, and applications.

GRADUATION REQUIREMENTS

General Education	27.0
Major Requirements	72.5–74.0
Total Credit Hours Required	**99.5–101.0**

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

Communications	Credit Hrs.
English Level I (see page 38)	4.5
English Level II (see page 38)	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**
MATH 1410 Statistics ◇	4.5
Other	**Credit Hrs.**
HMRL 1010 Human Relations Skills	4.5
INFO 1001 Information Systems and Literacy	4.5

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

◇ Additional prerequisites may be required.

Continued...

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

Courses		Credit Hrs.
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 (*Fall and Spring only*)	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
Select one of the following courses:		
ACCT 1060	Payroll Accounting	3.0
ACCT 1070	Individual Income Tax Accounting	4.0
ACCT 1210	Accounting with QuickBooks	3.0
ACCT 2981	Internship	3.0– 4.5
FINA 1200	Wealth-Building Fundamentals	4.5
INFO 1212	Spreadsheet I	4.5

ACCT 1110 is the prerequisite to enroll in ACCT 2120.

ACCT 2120 can be taken concurrently with ACCT 1120.

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.

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.

Below is a suggested guide for students planning to complete the Associate Degree in Accounting after two years of full-time study.

FIRST YEAR						
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**
ACCT 1100	4.0	ACCT 1110	4.0	ACCT 1120	4.0	
BSAD 1000	4.5	ECON 1000	4.5	BSAD 1010	4.5	
ENGL 1010 **OR**		ENGL 1020 **OR**		ECON 1100	4.5	
ENGL 1230	4.5	ENGL 1240	4.5	Humanities/		
INFO 1001	4.5	HMRL 1010	4.5	Social Sciences Elective	4.5	
MATH prerequisite	4.5		17.5		17.5	
	22.0					
SECOND YEAR						
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**		**Eighth Quarter**
ACCT 2120 (*Fall only*)	4.0	ACCT 2130 (*Winter only*)	4.0	ACCT 2140 (*Spring only*)	4.0	
ACCT 2230	4.0	ACCT 2330	4.0	ACCT 2940	1.5	
BSAD 1100	4.5	BSAD 1110	4.5	FINA 2230	4.5	
BSAD 2100	4.5	MATH 1410	4.5	Elective requirement	3.0– 4.5	
	17.0		17.0		13.0– 14.5	

BUSINESS/ OFFICE

Bookkeeping (BKPCE)

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

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

GRADUATION REQUIREMENTS	
General Education	22.5
Major Requirements	31.0–32.0
Total Credit Hours Required	**53.5–54.5**

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

Communications	Credit Hrs.	Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	ECON 1000 Macroeconomics	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
Mathematics (see page 38)	4.5	HMRL 1010 Human Relations Skills	4.5
		INFO 1001 Information Systems and Literacy	4.5

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

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

Courses		Credit Hrs.
Take one of the following groups of courses:		
ACCT 1050	Bookkeeping **AND**	
ACCT 1100	Accounting I	
OR		
ACCT 1100	Accounting I **AND**	
ACCT 1110	Accounting II	7.0– 8.0
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	4.5
INFO 1012	Electronic Filing and Calculating	4.5
Choose one course from the following:		4.5
BSAD 1600	Principles of Supervision	4.5
BSAD 2100	Principles of Management	4.5
BSAD 2600	Human Resources Management	4.5
INFO 1212	Spreadsheet I	4.5

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

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 (BMAAS)

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

The Business Management curriculum 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	22.5–31.5
Total Credit Hours Required	**98.5–108.0**

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

Communications		Credit Hrs.
English Level I (see page 38)		4.5
English Level II (see page 38)		4.5
Quantitative/Numeracy Skills		**Credit Hrs.**
MATH 1410	Statistics ◇	4.5
Other		**Credit Hrs.**
HMRL 1010	Human Relations Skills	4.5
INFO 1001	Information Systems and Literacy **OR**	4.5
ACCT 2230	Microcomputer Business Applications	4.0

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

◇Additional prerequisite(s) may be required.

Major Requirements for Business Management .....49.5 Credit Hrs.

Courses		Credit Hrs.
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

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.

Continued...

Requirements for Business Management Course Track Offerings ..... 22.5–31.5 Credit Hrs.

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

Credit Management 25.5 credit hrs.	**Entrepreneurship** 27.0 credit hrs.	**Financial Planning and Investment** 31.5 credit hrs.
Financial Services Management 22.5 credit hrs.	**Generalist** 25.0 credit hrs.	**Insurance and Risk Management** 27.5 credit hrs.
International Business 25.5 credit hrs.	**Merchandising Management** 25.5 credit hrs.	**Operations and Supply Chain Management** 27.0 credit hrs.
Organizational Development 25.5–27.0 credit hrs.		
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 is also available. See page 89.*	

Business Management Course Track Offerings

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

Business electives^ 25.0

^FINA 1200 Wealth-Building Fundamentals is recommended.

Credit Management (BMCMO)* 25.5
Prepares students with a background in general business and focuses on the credit management industry.

FINA 2209 Risk Management and Insurance 4.5
FINA 2210 Financial Planning Principles 4.5
FINA 2240 Financial Statement Analysis 3.0
FINA 2410 Consumer Credit 4.5
LAWS 2325 Bankruptcy, Credit, and Collections Law 4.5
Business electives 4.5

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

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

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

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

Financial Services Management (BMFMO) 24.0
Prepares students with a background in general business and prepares them to seek employment in the financial services industry.

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

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

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

◇Additional prerequisite(s) may be required.

*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.

Continued...

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

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

Merchandising Management (BMMMO) 25.5–27.0
Prepares students with a background in general business and focuses on the merchandising/retail industry.

BSAD 1200 Principles of Selling..... 4.5
BSAD 1201 Advertising and Sales Promotion..... 4.5
BSAD 1202 Direct Marketing Methods (*Fall only*)..... 4.5
BSAD 1210 Retailing..... 4.5
Business electives..... 7.5–9.0

Operations and Supply Chain Management (BMOSO)..... 27.0
Prepares the students with a background in general business and focuses on the manufacturing/production sector.

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

Organizational Development (BMODO)..... 25.5–27.0
Prepares students with a background in general business and focuses on development of management and leadership skills.

BSAD 1300 Introduction to Quality Management..... 4.5
BSAD 1600 Principles of Supervision..... 4.5
BSAD 2600 Human Resources Management..... 4.5
HMRL 1050 Leadership: Training/Skill Development..... 4.5
Business electives 7.5–9.0

Business electives should be selected from ACCT, BSAD, ECON, FINA, ENTR, INSU, or REES.
◇Additional prerequisite(s) may be required

The degree option is a specialization within a program. Although students may complete multiple options within this program, only the major degree is awarded.

Below is a suggested guide for students planning a career in business management after two years of full-time study.

FIRST YEAR			
First Quarter	**Second Quarter**	**Third Quarter**	**Fourth Quarter**
ACCT 1100 4.0	ACCT 1110 4.0	ACCT 1120 4.0	
BSAD 1000 4.5	ECON 1000 4.5	ECON 1100 4.5	
English Level I 4.5	ENGL 1020 **OR**	Gen. Ed. 4.5	
MATH 1410 4.5	ENGL 1240 4.5	Option track 3.0–7.5	
17.5	HMRL 1010 4.5	16.0–20.5	
	17.5		
SECOND YEAR			
Fifth Quarter	**Sixth Quarter**	**Seventh Quarter**	**Eighth Quarter**
ACCT 2230 **OR** 4.5	BSAD 1110 4.5	BSAD 1010 4.5	
INFO 1001 4.0	BSAD 2100 4.5	BSAD 2940 1.5	
BSAD 1100 4.5	Option track 3.0–7.5	FINA 1200 4.5	
Option track 3.0–4.5	Option track 3.0–7.5	FINA 2230 4.5	
Option track 3.0–4.5	15.0–24.0	Option track 3.0–4.5	
19.0–22.0		Extra class recommended 4.5	
		22.5–24.0	

Business Management – Entrepreneurship (BMECE)

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

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

GRADUATION REQUIREMENTS

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

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

Communications	Credit Hrs.	Other	Credit Hrs.
English Level I (see page 38)	4.5	HMRL 1010 Human Relations Skills	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
Mathematics (see page 38)	4.5		

Major Requirements for Business Management – Entrepreneurship.....35.5–36.0 Credit Hrs.

Courses		Credit Hrs.
BSAD 2100	Principles of Management	4.5
ENTR 1050	Introduction to Entrepreneurship	4.5
ENTR 2040	Entrepreneurship Feasibility Study	4.5
ENTR 2090	Entrepreneurship Business Plan	4.5
Select 17.5–18.0 credit hours from the following:		
ACCT 1100	Accounting	4.0
ENTR 2050	Marketing for the Entrepreneur	4.5
ENTR 2060	Legal Issues for the Entrepreneur	4.5
ENTR 2070	Financial Topics for the Entrepreneur	4.5
INFO 1010	Customer Service Skills	4.5

Business Management – Insurance and Risk Management (BIRCE)

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

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

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

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

Communications	Credit Hrs.	Other	Credit Hrs.
English Level I (see page 38)	4.5	HMRL 1010 Human Relations Skills	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
Mathematics (see page 38)^	4.5		
MATH 1410 Statistics	4.5		
^Math 1310 recommended			

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

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

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

Business Management – International Business (BMICE)

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

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

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

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

Communications	Credit Hrs.	Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	Social Sciences (see page 38)	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
Mathematics (see page 38)	4.5	HMRL 1010 Human Relations Skills	4.5

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

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

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

Business Management – Marketing (BMMCE)

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

The Marketing Certificate prepares students for employment as a supervisor in direct sales and related fields.

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

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

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	Humanities/Social Sciences (see page 38)	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
Mathematics (see page 38)	4.5	HMRL 1010 Human Relations Skills	4.5

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

Major Requirements for Business Management – Marketing.....31.0 Credit Hrs.

Courses		Credit Hrs.
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
Select one course from the following:		
BSAD 1100	Business Law I	4.5
BSAD 1202	Direct Marketing Methods (*Fall only*)	4.5
BSAD 2100	Principles of Management	4.5
ENTR 2050	Marketing for the Entrepreneur	4.5
FINA 1200	Wealth-Building Fundamentals	4.5
Any course in the ENTR or FINA prefix		4.5

Business Management – Not-for-Profit Management (BMNCE)

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

The Not-for-Profit Management Certificate prepares students to perform managerial functions in a variety of community services and agencies.

GRADUATION REQUIREMENTS	
General Education	13.5
Major Requirements	31.0
Option Requirements	7.5
Total Credit Hours Required	**52.0**

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

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
ENGL 1220 Technical Writing	4.5	Humanities/Social Sciences (see page 38)	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
Mathematics (see page 38)	4.5		

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

Courses		Credit Hrs.
ACCT 1050	Bookkeeping	4.0
BSAD 1010	Principles of Marketing	4.5
BSAD 1100	Business Law I **OR**	
ECON 1100	Microeconomics	4.5
BSAD 1250	Introduction to Not-for-Profit	4.5
BSAD 2100	Principles of Management	4.5
ENGL 1240	Oral and Written Reports	4.5
ENGL 2210	Grant Writing	4.5

Option Requirements for Business Management – Not-for-Profit Management.....7.5 Credit Hrs.

Courses		Credit Hrs.
ARTS 2220	Art Gallery Management **OR**	
HMSV 1010	Introduction to Human Services **OR**	
THEA 2200	Arts Administration	4.5
BSAD 2981	Internship	3.0

Business Management – Para-Financial Planner (BPFCE)

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

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

GRADUATION REQUIREMENTS	
General Education	13.5
Major Requirements	37.0
Total Credit Hours Required	**50.5**

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

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	Humanities/Social Sciences (see page 38)	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
MATH 1220 Business Mathematics	4.5		

Major Requirements for Business Management – Para-Financial Planner. .....37.0 Credit Hrs.

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

Business Management – Specialist Diplomas

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

Business Management Generalist (BMGSD)

The Business Management Generalist Specialist Diploma is designed to provide 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 Diploma.....25.0 Credit Hrs.

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

Credit Management (BCMSD)

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

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

Courses		Credit Hrs.
ACCT 1100	Accounting I	4.0
ACCT 1110	Accounting II	4.0
ACCT 1120	Accounting III	4.0
BSAD 1100	Business Law I	4.5
BSAD 2100	Principles of Management	4.5
FINA 2240	Financial Statement Analysis	3.0
FINA 2410	Consumer Credit	4.5
LAWS 2325	Bankruptcy, Credit, and Collections Law ◇	4.5

◇Additional prerequisite(s) may be required.

Customer Service Management (BCSSD)

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

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

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

Entrepreneurship (BENSD)

The Entrepreneurship Specialist Diploma prepares students with a background in small business management to enable them to be successful in starting a new business.

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

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

Financial Counseling (BFCSD)

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

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

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

Financial Planning Specialist (BFPS1)

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

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

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

Financial Services Management (BFSSD)

The Financial Services Management Specialist Diploma provides the practitioner with background information and builds skills needed in managing the financial services function in a business setting.

Requirements for
Financial Services Management Diploma .....24.0 Credit Hrs.

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

◇ Additional prerequisite(s) may be required.

Financial Services Specialist (BMFSD)

The Financial Services Specialist Specialist Diploma is designed to develop a strong general background for those seeking to pursue a career in finance.

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

Courses		Credit Hrs.
ECON 1000	Macroeconomics	4.5
FINA 1200	Wealth-Building and Personal Finance	4.5
FINA 1310	Introduction to the Financial Services Industry	4.5
FINA 1320	Financial Calculator Applications	1.0
FINA 2100	Introduction to Investments	4.5
FINA 2981	Internship	4.5
MATH 1220	Business Mathematics	4.5
Humanities/Social Science course		4.5

Insurance and Risk Management (BIMS1)

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

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

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

Insurance Entrepreneurship (BMIED)

The Insurance Entrepreneurship Specialist Diploma is designed for those seeking self-employment in the insurance industry.

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

Courses		Credit Hrs.
BSAD 1200	Principles of Selling	4.5
ENTR 1050	Introduction to Entrepreneurship	4.5
ENTR 2040	Entrepreneurship Feasibility Study	4.5
ENTR 2090	Entrepreneurship Business Plan	4.5
INSU 1000	Principles of Health and Life Insurance	4.5
INSU 1100	Principles of Property and Casualty Insurance	4.5

International Business (BIBSD)

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

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

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

◇Additional prerequisite(s) may be required.

Marketing Administration (BMASD)

The Marketing Administration Specialist Diploma is designed to provide students with marketing, promotional, and management skills as generally used in corporate, retail, and small business settings.

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

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

Merchandising Management (BMMSD)

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

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

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

Not-for-Profit Management (BNPSD)

The Not-for-Profit Management Specialist Diploma prepares students to perform managerial functions in a variety of community services and agencies.

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

Courses		Credit Hrs.
BSAD 1010	Principles of Marketing	4.5
BSAD 1250	Introduction to Not-for-Profit	4.5
BSAD 2100	Principles of Management	4.5
BSAD 2981	Internship	3.0
ENGL 2210	Grant Writing	4.5
HMSV 1010	Introduction to Human Services **OR**	
THEA 2200	Arts Administration	4.5

Operations and Supply Chain Management (BOSSD)

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

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

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

Organizational Development (BODSD)

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

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

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

Real Estate Entrepreneurship (BMRED)

The Real Estate Entrepreneurship Specialist Diploma is designed for those seeking self-employment in the real estate industry.

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

Courses		Credit Hrs.
BSAD 1200	Principles of Selling	4.5
ENTR 1050	Introduction to Entrepreneurship	4.5
ENTR 2040	Entrepreneurship Feasibility Study	4.5
ENTR 2090	Entrepreneurship Business Plan	4.5
REES 1000	Principles of Real Estate	4.5
REES 1100	Real Estate Law	4.5

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, the University of Nebraska–Lincoln (UNL), Northwest Missouri State, and the University of Nebraska–Omaha (UNO) accept this degree. Areas of emphasis include accounting, economics, management, and marketing.

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

General Education Requirements.....56.0* Credit Hrs.

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

Quantitative/Numeracy Skills		Credit Hrs.
MATH 1410	Statistics ◇	4.5
MATH 1420	College Algebra ◇	5.0

Humanities		Credit Hrs.
Select one course from the following:		
ARTS 1110	Art History – Ancient to Gothic	4.5
ARTS 1120	Art History – Renaissance to Modern	4.5
ENGL 2470	Introduction to Women's Literature	4.5
ENGL 2610	British Literature I	4.5
ENGL 2620	British Literature II	4.5
MUSC 1010	Introduction to Music I	4.5
MUSC 1020	Introduction to Music II	4.5
PHIL 2030	Introduction to Ethics	4.5
PHIL 2200	Introduction to Comparative Religion	4.5
THEA 1000	Introduction to the Theatre	4.5

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

Natural Sciences	Credit Hrs.
Natural Sciences (see page 38)	6.0

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

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

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

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

BUSINESS/ OFFICE

Continued...

Major Requirements for Business Transfer .....43.5 Credit Hrs.

Courses		Credit Hrs.
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 2600	Human Resource Management	4.5
BSAD 2610	Labor/Management Relations	4.5
BSAD 2630	Human Resource Development	4.5
BSAD 2700	Introduction to International Business	4.5
BSAD 2720	International Marketing Management	4.5
ECON 2720	International Economics	4.5

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

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

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

Below is a suggested guide for students planning to complete the Business Transfer degree after two years of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
BSAD 1000	4.5	ACCT 1100	4.0	ACCT 1110	4.0		
ENGL 1010	4.5	ECON 1000	4.5	ECON 1100	4.5		
HMRL 1010	4.5	ENGL 1020	4.5	SPCH 1110	4.5		
MATH 1420	5.0	MATH 1410	4.5	Social Science Elective	4.5		
	18.5		17.5		17.5		
SECOND YEAR							
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**		**Eighth Quarter**	
ACCT 1120	4.0	BSAD 1010	4.5	Cultural Diversity Elective	4.5		
ACCT 2230 **OR**		Humanities Elective*	4.5	International Business Elective	4.5		
INFO 1001	4.5	Social Science Elective	4.5	Natural Science Elective	6.0		
BSAD 1100	4.5		13.5		15.0		
BSAD 2100	4.5	**PHIL 2030 is recommended.*					
	17.5						
Visit MCC's website for the most current transfer listings at www.mccneb.edu/articulation.				*It pays to be prepared. It is strongly recommended that students complete math requirements early in the program of study.*			

Financial Planning (BMPC1)

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

The Professional Planning Certificate is designed to provide 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	18.0
Major Requirements	36.0
Total Credit Hours Required	**54.0**

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

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	Humanities/Social Sciences (see page 38)	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
MATH 1410 Statistics	4.5		
Mathematics (see page 38)^	4.5		
^MATH 1310 is recommended.			

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

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

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

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

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BUSINESS/ OFFICE

Health Information Management Systems (HIMAS)

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

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

GRADUATION REQUIREMENTS

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

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

Communications	Credit Hrs.	Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	ECON 1000 Macroeconomics **OR**	
English Level II (see page 38)	4.5	PSYC 1010 Introduction to Psychology **OR**	
ENGL 1220 and ENGL 1240 are suggested.		SOCI 1010 Introduction to Sociology	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1220 Business Math	4.5	HMRL 1010 Human Relations Skills	4.5
		INFO 1001 Information Systems and Literacy	4.5

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

Courses		Credit Hrs.
HIMS 1115	Health Information Management Basics	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

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

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

Medical Coding and Billing	Medical Office Management	Medical Transcription
30.0 credit hrs.	25.5 credit hrs.	27.0 credit hrs.

Health Information Management Systems – Medical Coding and Billing (HIMC1)

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

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

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

General Education Requirements..... listed on page 92

Major Requirements for Health Information Management Systems..... listed on page 92

Requirements for Health Information Management Systems – Medical Coding and Billing Option.....30.0 Credit Hrs.

Courses		Credit Hrs.
HIMS 1180	Disease Processes	4.5
HIMS 1410	Introduction to Insurance	3.0
HIMS 2150	Pharmacology I	4.5
HIMS 2160	Pharmacology II	4.5
HIMS 2420	Coding and Billing I	4.5
HIMS 2430	Coding and Billing II	4.5
HIMS 2900	Special Topics in Health Information Management Systems	4.5

Health Information Management Systems – Medical Office Management (HIMO1)

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

This program 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	44.5
Option Requirements	25.5
Total Credit Hours Required	**97.0**

General Education Requirements ..... listed on page 92

Major Requirements for Health Information Management Systems ..... listed on page 92

Requirements for Health Information Management Systems – Medical Office Management .....25.5 Credit Hrs.

Courses		Credit Hrs.
ACCT 1100	Accounting I	3.0
HIMS 1210	Medical Office Communications	4.5
HIMS 2220	Medical Transcription I	4.5
INFO 1212	Spreadsheet I	4.5
INFO 1213	Database Fundamentals I	4.5
HIMS 2900	Special Topics in Health Information Management Systems	4.5

Health Information Management Systems – Medical Transcription (HIMTO)

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

This program 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	44.5
Option Requirements	27.0
Total Credit Hours Required	**98.5**

General Education Requirements..... listed on page 92

Major Requirements for Health Information Management Systems..... listed on page 92

Requirements for Health Information Management Systems – Medical Transcription Option.....27.0 Credit Hrs.

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

Program Codes:

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

The degree option is a specialization within a program. Although students may complete multiple options within this program, only the major degree is awarded.

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

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
English Level I	4.5	HIMS 1120	4.5	English Level II	4.5	ACCT 1100 (OM) **OR**	
HIMS 1115	4.5	HIMS 1150	4.5	HIMS 1130	4.5	HIMS 1210 (MT) **OR**	
INFO 1001	4.5	HIMS 1212 (TO/OM) **OR**		HIMS 1310	4.5	HIMS 1410 (CB)	3.0–4.5
	13.5	HIMS 1220 (CB)	4.5		13.5	HIMS 1180 (TO/CB) **OR**	
			13.5			HIMS 1210 (OM)	4.5
						HMRL 1010	4.5
							12.0–13.5
SECOND YEAR							
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**		**Eighth Quarter**	
HIMS 1220 (OM) **OR**		HIMS 2160 (TO/CB) **OR**		HIMS 2230 (TO) **OR**		HIMS 1212 (CB)	4.5
HIMS 2150 (TO/CB)	4.5	INFO 1212 (OM)	4.5	HIMS 2430 (CB) **OR**		HIMS 2981	4.0
HIMS 2110	4.5	HIMS 2220 (TO/OM) **OR**		INFO 1213 (OM)	4.5		8.5
HIMS 2400	4.5	HIMS 2420 (CB)	4.5	HIMS 2980	4.5		
	13.5	MATH 1220	4.5	Social Sciences elective	4.5		
			13.5		13.5		

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

Legal Studies (LSAAS)

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

The Legal Studies program 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	27.0–27.5
Major Requirements	36.0
Option Requirements	36.0–44.0
Total Credit Hours Required	**99.0–107.5**

General Education Requirements..... 27.0–27.5 Credit Hrs.

Communications		Credit Hrs.	Humanities/Social Sciences		Credit Hrs.
ENGL 1010	English Composition I	4.5	PHIL 1100	Critical Reasoning	4.5
ENGL 1020	English Composition II	4.5			
Quantitative/Numeracy Skills		**Credit Hrs.**	**Other**		**Credit Hrs.**
MATH 1410	Statistics ◇ (or higher)	5.0	ACCT 2230	Microcomputer Accounting Applications **OR**	4.0
			INFO 1001	Information Systems and Literacy	4.5
			HMRL 1010	Human Relations Skills	4.5

◇ Additional prerequisite(s) may be required.

Major Requirements for Legal Studies.....36.0 Credit Hrs.

Courses		Credit Hrs.
BSAD 1100	Business Law I	4.5
LAWS 1101	Introduction to Law	4.5
LAWS 1111	Microsoft Word for the Law Office	4.5
LAWS 1230	Legal Research and Writing I	4.5
LAWS 2240	Legal Research and Writing II	4.5
LAWS 2324	Criminal Law and Procedure	4.5
POLS 2050	American National Government **OR**	
POLS 2060	The Constitution	4.5
SPCH 1110	Public Speaking	4.5

Option Requirements for Legal Studies.....36.0–44.0 Credit Hrs.

The Legal Studies degree options are available in the areas listed below. See the following pages for specific additional courses required to satisfy each option.

Legal Administrative Assistant	Paralegal	Pre-Law
41.0 credit hours	44.0 credit hours	36.0 credit hours

Legal Studies – Legal Administrative Assistant (LSAAO)

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

The Legal Administrative Assistant option prepares legal administrative assistants for entry-level employment in law and law-related fields such as administrative or executive assistants, office supervisors, or other support staff.

GRADUATION REQUIREMENTS

General Education	27.0–27.5
Major Requirements	36.0
Option Requirements	41.0
Total Credit Hours Required	**104.0–104.5**

General Education Requirements ..... listed on page 96

Major Requirements for Legal Studies ..... listed on page 96

Option Requirements for Legal Administrative Assistant .....41.0 Credit Hrs.

Courses			Credit Hrs.
INFO	1008	Business Office Communication	4.5
INFO	1012	Electric Filing and Calculating	4.5
INFO	1013	Keyboard Skillbuilding	2.0
INFO	1210	Microsoft Word I	4.5
INFO	1213	Database Fundamentals I	4.5
INFO	1214	Business Presentations	4.5
INFO	1215	Document Processing	4.5
INFO	2240	Integrated Microsoft Office	5.0
INFO	2241	Business Practices	3.0
INFO	2981	Internship	4.0

Below is a suggested guide for students planning to complete the associate degree in Legal Studies – Legal Administrative Assistant after two years of full-time study.

FIRST YEAR											
First Quarter			Second Quarter			Third Quarter			Fourth Quarter		
ENGL	1010	4.5	ENGL	1020	4.5	MATH	1410	5.0	BSAD	1100	4.5
INFO	1001 **OR**		SPCH	1110	4.5	LAWS	1101	4.5	HMRL	1010	4.5
ACCT	2230	4.0–4.5	POLS	2060 **OR**		LAWS	1111	4.5	LAWS	1110	4.5
PHIL	1100	4.5	POLS	2070	4.5			14.0			13.5
		13.0–13.5			13.5						
SECOND YEAR											
Fifth Quarter			Sixth Quarter			Seventh Quarter			Eighth Quarter		
INFO	1008	4.5	INFO	1212	4.5	INFO	1215	4.5	INFO	2241	3.0
INFO	1012	4.5	INFO	1213	4.5	INFO	2240	5.0	INFO	2981	4.0
INFO	1013	2.0	INFO	1214	4.5	LAWS	1230	4.5	LAWS	2240	4.5
		11.0			13.5			14.0			11.5

The Legal Administrative Assistant option is not a program for the education of paralegals.

Continued...

Legal Studies – Paralegal* (LSPAO)

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

The objectives of the Paralegal option are to prepare paralegals for entry-level employment in law-related occupations including public and private law practice or corporate/government activities related to law and to enable graduates to pursue further education at the college junior level.

Graduates are qualified to:

- perform basic legal research and supporting memoranda using both computerized and manual search methods
- draft correspondence, pleadings, contracts, and other legal documents appropriately for attorney use
- prioritize and complete work assignments in a timely, professional, and ethical manner

Although graduates are not authorized to provide direct legal services to the public, they are authorized to perform substantive legal work under the direct supervision of a lawyer. This program does not train lawyers or legal administrators.

*This program has special admission requirements. Interested individual should contact Student Services or the Program Director for details.

GRADUATION REQUIREMENTS

General Education	27.0–27.5
Major Requirements	36.0
Option Requirements	17.0
Electives	27.0
Total Credit Hours Required	**107.0–107.5**

The Paralegal option is approved by the American Bar Association.

General Education Requirements ..... listed on page 96

Major Requirements for Legal Studies ..... listed on page 96

Option Requirements for Legal Studies – Paralegal..17.0 Credit Hrs.

Courses		Credit Hrs.
LAWS 1100	The Paralegal Profession	4.5
LAWS 1110	Litigation (Civil)	4.5
LAWS 2981	Internship I	4.0
LAWS 2982	Internship II	4.0

Elective Requirements for Legal Studies – Paralegal .....27.0 Credit Hrs.

Courses		Credit Hrs.
Choose 27.0 credit hours from the following courses:		
ACCT 1070	Individual Income Tax Accounting	4.5
BSAD 1110	Business Law II	4.5
LAWS 2320	Torts	4.5
LAWS 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
REES 1100	Real Estate Law	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.

Below is a suggested guide for students planning to complete the associate degree in Legal Studies – Paralegal after two years of full-time study.

FIRST YEAR			
First Quarter	**Second Quarter**	**Third Quarter**	**Fourth Quarter**
ACCT 2230 **OR** 4.0	ENGL 1020 4.5	LAWS 1100 4.5	BSAD 1100 4.5
INFO 1001 4.5	POLS 2050 **OR**	LAWS 1101 4.5	HMRL 1010 4.5
ENGL 1010 4.5	POLS 2060 4.5	MATH 1410 5.0	LAWS 1110 4.5
PHIL 1100 4.5	SPCH 1110 4.5	14.0	LAWS 1111 4.5
13.0–13.5	13.5		18.0
SECOND YEAR			
Fifth Quarter	**Sixth Quarter**	**Seventh Quarter**	**Eighth Quarter**
LAWS 1230 4.5	LAWS 2240 4.5	LAWS 2981 4.0	LAWS 2982 4.0
Elective 4.5	Elective 4.5	Elective 4.5	Elective 4.5
Elective 4.5	Elective 4.5	8.5	8.5
13.5	13.5		
Paralegal electives should be taken during the second year of study.			

BUSINESS/ OFFICE

Legal Studies – Pre-Law (LSPLO)

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

The Pre-law option provides a broad foundation in the critical thinking, oral and written communication, and general research skills that prepare students who contemplate a pre-law or similar course of study at a four-year institution. Each four-year institution publishes its requirement for admission, general education, and degree major requirements.

GRADUATION REQUIREMENTS

General Education	27.0–27.5
Major Requirements	36.0
Option Requirements	36.0
Total Credit Hours Required	**99.0–99.5**

General Education Requirements..... listed on page 96

Major Requirements for Legal Studies..... listed on page 96

Option Requirements for Legal Studies – Pre-Law....36.0 Credit Hrs.

Courses		Credit Hrs.
Choose 36.0 credit hours from the following courses:		
BSAD 2720	Introduction to International Business	4.5
ECON 1000	Macroeconomics	4.5
ECON 1100	Microeconomics	4.5
HIST 1010	U.S. History to 1877	4.5
HIST 1020	U.S. History from 1865 to Present	4.5
LAWS 1110	Litigation	4.5
PHIL 1010	Introduction to Philosophy	4.5
PHIL 1030	Professional Ethics	4.5
PHIL 2400	Philosophy and Literature	4.5
PHIL 2600	Contemporary Issues in Philosophy	4.5
PSYC 1010	Introduction to Psychology	4.5

Below is a suggested guide for students planning to complete the associate degree in Legal Studies – Pre-Law option after two years of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
ACCT 2230 **OR**	4.5	ENGL 1020	4.5	MATH 1410	5.0	BSAD 1100	4.5
INFO 1001	4.0	POLS 2060 **OR**		LAWS 1100	4.5	HMRL 1010	4.5
ENGL 1010	4.5	POLS 2070	4.5	LAWS 1101	4.5	LAWS 1110	4.5
PHIL 1100	4.5	SPCH 1110	4.5		14.0		13.5
	13.0–13.5		13.5				
SECOND YEAR							
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**		**Eighth Quarter**	
LAWS 1111	4.5	LAWS 2240	4.5	Elective	4.5	Elective	4.5
LAWS 1230	4.5	Elective	4.5	Elective	4.5	Elective	4.5
Elective	4.5		9.0	Elective	4.5		9.0
	13.5				13.5		
Pre-Law electives should be taken during the second year of study.							

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 program has special admission requirements. Students must posses a baccalaureate degree from a recognized college or university to participate in this certificate option.

GRADUATION REQUIREMENTS	
Major Requirements	39.5
Elective Requirements	22.5
Total Credit Hours Required	**62.0**

Major Requirements for Paralegal Accelerated Certificate.....39.5 Credit Hrs.

Courses		Credit Hrs.
BSAD 1100	Business Law I	4.5
LAWS 1100	The Paralegal Profession	4.5
LAWS 1101	Introduction to Law	4.5
LAWS 1110	Litigation	4.5
LAWS 1111	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.....22.5 Credit Hrs.

Courses		Credit Hrs.
Choose 22.5 credit hours from the following electives:		
BSAD 1110	Business Law II	4.5
LAWS 2320	Torts	4.5
LAWS 2322	Family Law	4.5
LAWS 2323	Employment Law	4.5
LAWS 2324	Criminal Law and Procedure	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
REES 1100	Real Estate Law	4.5

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		Second Quarter		Third Quarter		Fourth Quarter	
LAWS 1100	4.5	BSAD 1100	4.5	LAWS 2240	4.5	LAWS 2982	4.0
LAWS 1101	4.5	LAWS 1110	4.5	LAWS 2981	4.5	Elective	4.5
LAWS 1111	4.5	LAWS 1230	4.5	Elective	4.5	Elective	4.5
	13.0	Elective	4.5	Elective	4.5		13.0
			18.0		17.5		

BUSINESS/ OFFICE

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. The purpose of the Medical Office Program is to provide educational opportunities to individuals to obtain the basic knowledge, skills, and attitudes necessary to succeed as a clerk in a medical office environment.

GRADUATION REQUIREMENTS	
General Education	13.5
Major Requirements	18.0
Option Requirements	22.5
Total Credit Hours Required	**54.0**

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

Communications	Credit Hrs.	Quantitative/Numeracy Skills	Credit Hours
English Level I (see page 38)	4.5	MATH 1220 Business Mathematics	4.5
Other	**Credit Hrs.**		
INFO 1001 Information Systems and Literacy	4.5		

Major Requirements for Medical Office .....18.0 Credit Hrs.

Courses		Credit Hrs.
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 .....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	Medical Office Assistant	Medical Transcription
22.5 credit hours	22.5 credit hours	22.5 credit hours

Students furthers their education in the Health Information Management Systems area by completing an associate degree.

Students having little or no experience in the healthcare field should also consider taking HIMS 1115 Health Information Management Basics.

Medical Office – Medical Coding and Billing Assistant (MOCB1)

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

This program provides students with the basic foundation needed to work in a healthcare facility as a coding and billing assistant

GRADUATION REQUIREMENTS	
General Education	13.5
Major Requirements	18.0
Option Requirements	22.5
Total Credit Hours Required	**54.0**

General Education Requirements..... listed on page 102

Major Requirements for Medical Office..... listed on page 102

Option Requirements for Medical Office – Medical Coding and Billing Assistant.....22.5 Credit Hrs.

Courses		Credit Hrs.
HIMS 1180	Disease Processes	4.5
HIMS 2150	Pharmacology I	4.5
HIMS 2400	Introduction to Coding and Billing	4.5
HIMS 2420	Coding and Billing I	4.5
HIMS 2430	Coding and Billing II	4.5

It is strongly recommended that the student take HIMS 1410 Principles of Insurance and HIMS 2160 Pharmacology II in order to meet entry-level requirements for working in medical coding and billing.

The degree option is a specialization within a program. Although students may complete multiple options within this program, only the major degree is awarded.

Below is a suggested guide for students planning a career as a medical coding and billing assistant after one year of full-time study.

FIRST YEAR							
First Quarter		Second Quarter		Third Quarter		Fourth Quarter	
HIMS 1120	4.5	HIMS 1130	4.5	HIMS 2150	4.5	English Level I	4.5
HIMS 1150	4.5	HIMS 1180	4.5	HIMS 2400	4.5	HIMS 2430	4.5
INFO 1001	4.5	HIMS 1310	4.5	HIMS 2420	4.5	MATH 1220	4.5
	13.5		13.5		13.5		13.5

Medical Office – Medical Office Assistant (MOOA1)

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

This program provides students with the basic foundation necessary to work in a healthcare facility as a medical receptionist or a hospital facility as a unit secretary.

GRADUATION REQUIREMENTS	
General Education	13.5
Major Requirements	18.0
Option Requirements	22.5
Total Credit Hours Required	**54.0**

General Education Requirements ..... listed on page 102

Major Requirements for Medical Office ..... listed on page 102

Major Requirements for Medical Office – Medical Office Assistant .....22.5 Credit Hrs.

Courses		Credit Hrs.
HIMS 1210	Medical Office Communications	4.5
HIMS 1212	Microsoft Word for Medical Office	4.5
HIMS 2150	Pharmacology I	4.5
HIMS 2220	Medical Transcription I	4.5
HIMS 2400	Introduction to Coding and Billing	4.5

It is strongly recommended that students take HIMS 2160 Pharmacology II in order to meet entry-level requirements for working in a medical facility.

The degree option is a specialization within a program. Although students may complete multiple options within this program, only the major degree is awarded.

Below is a suggested guide for students planning a career as a medical office assistant after one year of full-time study.

FIRST YEAR							
First Quarter		Second Quarter		Third Quarter		Fourth Quarter	
HIMS 1120	4.5	ENGL Level I	4.5	HIMS 1212	4.5	HIMS 2220	4.5
HIMS 1150	4.5	HIMS 1130	4.5	HIMS 1310	4.5	HIMS 2400	4.5
INFO 1001	4.5	HIMS 1210	4.5	HIMS 2150	4.5	MATH 1220	4.5
	13.5		13.5		13.5		13.5

Medical Office – Medical Transcription (MOTC1)

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

This program provides students with the basic knowledge and skills necessary for an entry-level medical transcription trainee position in the healthcare industry.

GRADUATION REQUIREMENTS	
General Education	13.5
Major Requirements	18.0
Option Requirements	22.5
Total Credit Hours Required	**54.0**

General Education Requirements..... listed on page 102

Major Requirements for Medical Office..... listed on page 102

Option Requirements for Medical Office – Medical Transcription.....22.5 Credit Hrs.

Courses		Credit Hrs.
HIMS 1210	Medical Office Communications	4.5
HIMS 1212	Microsoft Word for Medical Office	4.5
HIMS 2150	Pharmacology I	4.5
HIMS 2220	Medical Transcription I	4.5
HIMS 2230	Medical Transcription II	4.5

It is strongly recommended that students take HIMS 2160 Pharmacology II in order to meet entry-level requirements for working as a medical transcriptionist trainee in a medical facility.

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

The degree option is a specialization within a program. Although students may complete multiple options within this program, only the major degree is awarded.

Below is a suggested guide for students planning a career in medical transcription after one year of full-time study.

FIRST YEAR							
First Quarter		Second Quarter		Third Quarter		Fourth Quarter	
HIMS 1120	4.5	HIMS 1130	4.5	English Level I	4.5	HIMS 1150	4.5
HIMS 1210	4.5	HIMS 1212	4.5	HIMS 2150	4.5	HIMS 2230	4.5
INFO 1001	4.5	HIMS 1310	4.5	HIMS 2220	4.5	MATH 1220	4.5
	13.5		13.5		13.5		13.5

BUSINESS/ OFFICE

Microcomputer Office Basics – Specialist Diploma

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

Microcomputer Office Basics (MOBSD)

The Microcomputer Office Basics Specialist Diploma prepares students with the basic computer and employability skills needed for success in today's increasingly competitive job market. Courses cover everything from email and familiarity with the Internet to applications like word processing software, spreadsheets, and presentation software.

Requirements for Microcomputer Office Basics Diploma.....25.0 Credit Hrs.

Courses			Credit Hrs.
INFO	1001	Information Systems and Literacy	4.5
INFO	1005	Keyboarding	2.0
INFO	1008	Business Office Communications	4.5
INFO	1010	Customer Service Skills	4.5
INFO	1013	Skill Building	2.0
WORK	1400	Employability Skills	3.0
Choose one of the following courses:			
INFO	1210	Microsoft Word I	4.5
INFO	1213	Database Fundamentals I	4.5

Microcomputer Office Technology (OSTC1)

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

This program 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
Total Credit Hours Required	**51.5**

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

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 38) *ENGL 1220 is recommended.*	4.5	Humanities/Social Sciences (see page 38)	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hours**
MATH 1220 Business Mathematics	4.5	INFO 1001 Information Systems and Literacy	4.5

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

Major Requirements for Microcomputer Office Technology .....20.0 Credit Hrs.

Courses		Credit Hrs.
INFO 1013	Keyboard Skillbuilding	2.0
INFO 1210	Microsoft Word I	4.5
INFO 1212	Spreadsheet I	4.5
INFO 1214	Business Presentations	4.5
INFO 1220	Microsoft Word II	4.5

Option Requirements for Microcomputer Office Technology .....13.5 Credit Hrs.

The Microcomputer Office Technology option specializations are available in the areas listed below. See the following pages for specific additional courses required to satisfy each option.

Information Technology	Office Applications
13.5 credit hours	13.5 credit hours

BUSINESS/ OFFICE

Microcomputer Office Technology – Information Technology (OTTCO)

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

The Information Technology program is for 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
Total Credit Hours Required	**51.5**

General Education Requirements..... listed on page 109

Major Requirements for Microcomputer Office Technology ..... listed on page 109

Option Requirements for Microcomputer Office Technology – Information Technology.....13.5 Credit Hrs.

Courses		Credit Hrs.
INFO 1110	Operating Systems I	4.5
INFO 1213	Database Fundamentals I	4.5
INFO 1317	Microsoft Office Web Editor	4.5

The certificate option is a specialization within a program. Although students may complete multiple options within this program, only the major degree is awarded.

Below is a suggested guide for students planning a career in information technology after one year of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
English Level I	4.5	INFO 1110	4.5	INFO 1214	4.5	INFO 1213	4.5
INFO 1010	4.5	INFO 1210	4.5	INFO 1220	4.5	Humanities/Social Sciences Elective	4.5
INFO 1013	2.0	INFO 1212	4.5	INFO 1317	4.5		
MATH 1220	4.5		13.5		13.5		9.0
	15.5						

Microcomputer Office Technology – Office Applications (OTGC1)

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

This program 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
Total Credit Hours Required	**51.5**

General Education Requirements ..... listed on page 109

Major Requirements for Microcomputer OfficeTechnology ..... listed on page 109

Option Requirements for Microcomputer Office Technology – Office Applications.....13.5 Credit Hrs.

Courses		Credit Hrs.
INFO 1008	Business Office Communications	4.5
INFO 1012	Electronic Filing and Calculating	4.5
INFO 1215	Document Processing	4.5

The certificate option is a specialization within a program. Although students may complete multiple options within this program, only the major degree is awarded.

Below is a suggested guide for students planning a career in office applications after one year of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
English Level I	4.5	INFO 1008	4.5	INFO 1212	4.5	INFO 1215	4.5
INFO 1010	4.5	INFO 1012	4.5	INFO 1214	4.5	Humanities/Social Sciences Elective	4.5
INFO 1013	2.0	INFO 1210	4.5	INFO 1220	4.5		
MATH 1220	4.5		13.5		13.5		9.0
	15.5						

BUSINESS/ OFFICE

Office Technology (OPAAS)

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

Office technology specialists are utilized in a broad range of businesses and industries, including both for-profit and nonprofit. This program of study provides 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	54.5
Option Requirements	18.0
Total Credit Hours Required	**99.5**

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

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	Humanities/Social Sciences (see page 38)	4.5
English Level II (see page 38)	4.5		
ENGL 1220 Technical Writing and ENGL 1230 Oral and Written Reports are recommended.			
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1220 Business Mathematics	4.5	HMRL 1010 Human Relations Skills	4.5
		INFO 1001 Information Systems and Literacy	4.5

Major Requirements for Office Technology .....54.5 Credit Hrs.

Courses		Credit Hrs.
INFO 1008	Business Office Communications	4.5
INFO 1012	Electronic Filing and Calculating	4.5
INFO 1013	Keyboard Skillbuilding	2.0
INFO 1110	Operating Systems I	4.5
INFO 1210	Microsoft Word I	4.5
INFO 1212	Spreadsheet I	4.5
INFO 1213	Database Fundamentals I	4.5
INFO 1214	Business Presentations	4.5
INFO 1215	Document Processing	4.5
INFO 1220	Microsoft Word II	4.5
INFO 2240	Integrated Microsoft Office	5.0
INFO 2241	Business Practices	3.0
INFO 2982	Microsoft Office Simulation **OR**	
INFO 2981	Internship	4.0

Option Requirements for Office Technology .....18.0 Credit Hrs.

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

Administrative Assistant	Office Professional
18.0 credit hours	18.0 credit hours

Office Technology – Administrative Assistant (OTAAO)

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

This flexible and broadly based program achieves maximum individual development of each person's knowledge and skills relative to the wide range of duties encountered in either 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	54.5
Option Requirements	18.0
Total Credit Hours Required	**99.5**

General Education Requirements..... listed on page 106

Major Requirements for Office Technology ..... listed on page 106

Option Requirements for Office Technology – Administrative Assistant…….....18.0 Credit Hrs.

Courses		Credit Hrs.
BSAD 1000	Introduction to Business	4.5
BSAD 1100	Business Law I	4.5
BSAD 1600	Principles of Supervision	4.5
PHIL 1100	Critical Reasoning	4.5

The degree option is a specialization within a program. Although students may complete multiple options within this program, only the major degree is awarded.

Below is a suggested guide for students planning a career as an administrative assistant after two years of full-time study.

FIRST YEAR							
First Quarter		Second Quarter		Third Quarter		Fourth Quarter	
English Level I	4.5	English Level II	4.5	BSAD 1000	4.5	BSAD 1100	4.5
INFO 1001	4.5	INFO 1012	4.5	INFO 1008	4.5	INFO 1110	4.5
INFO 1013	2.0	INFO 1210	4.5	INFO 1220	4.5	INFO 1212	4.5
MATH 1220	4.5		13.5		13.5		13.5
	15.5						

SECOND YEAR							
Fifth Quarter		Sixth Quarter		Seventh Quarter			
INFO 1213	4.5	BSAD 1600	4.5	HMRL 1010	4.5		
INFO 1214	4.5	INFO 2240	5.0	INFO 2981 **OR**			
INFO 1215	4.5	PHIL 1100	4.5	INFO 2982	4.0		
INFO 2241	3.0		14.0	Humanities/Social Sciences elective	4.5		
	16.5				13.0		

BUSINESS/ OFFICE

Office Technology – Office Professional (OTOPO)

Award: Associate in Applied Science Degree
Program location: Elkhorn Valley Campus, 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 office organized and running smoothly and work with much of the valuable data that a company needs to flourish.

GRADUATION REQUIREMENTS	
General Education	27.0
Major Requirements	54.5
Option Requirements	18.0
Total Credit Hours Required	**99.5**

General Education Requirements ..... listed on page 106

Major Requirements for Office Technology ..... listed on page 106

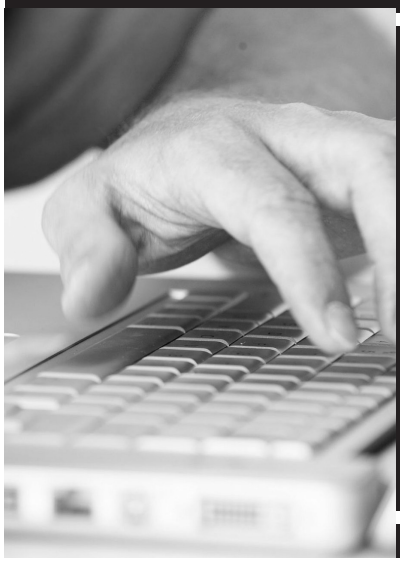
Option Requirements for Office Technology – Office Professional.....18.0 Credit Hrs.

Courses		Credit Hrs.
INFO 1010	Customer Service Skills	4.5
INFO 1011	Project Management I	4.5
INFO 1317	Microsoft Web Editors	4.5
INFO 2260	Networks, Applications, and Technologies in the Workplace	4.5

The degree option is a specialization within a program. Although students may complete multiple options within this program, only the major degree is awarded.

Below is a suggested guide for students planning employment as an office professional after two years of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
English Level I	4.5	English Level II	4.5	INFO 1008	4.5	INFO 1011	4.5
INFO 1001	4.5	INFO 1012	4.5	INFO 1010	4.5	INFO 1110	4.5
INFO 1013	2.0	INFO 1210	4.5	INFO 1220	4.5	INFO 1212	4.5
MATH 1220	4.5		13.5		13.5		13.5
	15.5						
SECOND YEAR							
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**			
INFO 1213	4.5	INFO 1317	4.5	HMRL 1010	4.5		
INFO 1214	4.5	INFO 2240	5.0	INFO 2981 **OR**			
INFO 1215	4.5	INFO 2260	4.5	INFO 2982	4.0		
INFO 2241	3.0		14.0	Humanities/Social Sciences elective	4.5		
	16.5				13.0		



COMPUTING ELECTRONICS

DEGREES IN THIS SECTION:

- Call Center Certificate
- Computer Technology Transfer
- Database Systems Certificate
- Electronics Technology
- Embedded Systems Technology
- General Information Technology
- Health Information Technology Specialist Diploma
- IBM i Systems Certificate
- Information Technology
- Medical Records Technician
- Microcomputer Technology Certificates
- Oracle Database Systems Certificate
- UNIX/Linux Operating Systems Certificate

OTHER RELATED DEGREES:

- Electronic Imaging and Media Arts (see *Arts*)
- Health Information Management Systems (see *Business/Office*)
- Office Technology (see *Business/Office*)
- Medical Office Certificates (see *Business/Office*)
- Microcomputer Office Technology Certificates (see *Business/Office*)

Call Center Specialist (CCSCE)

Award: Certificate of Achievement
Program location: Fort Omaha Campus

The Call Center Specialist Certificate provides students with the skills necessary to be successful as call center representatives in today's demanding business environment. The program is also appropriate for students wanting to update their skills. Students gain an understanding of call center topics, operations, and practices. The program emphasizes telephone techniques, written correspondence skills, problem-solving proficiency, and computer technology skills.

GRADUATION REQUIREMENTS	
General Education	18.0
Major Requirements	37.0
Total Credit Hours Required	**55.0**

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

Communications	Credit Hrs.	Other	Credit Hrs.
ENGL 1220 Technical Writing	4.5	HMRL 1010 Human Relations Skills	4.5
		INFO 1001 Information Systems and Literacy	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
MATH 1220 Business Mathematics	4.5		

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

Major Requirements for Call Center Specialist .....37.0 Credit Hrs.

Courses		Credit Hrs.
INFO 1008	Business Office Communications	4.5
INFO 1011	Project Management I	4.5
INFO 1013	Keyboard Skillbuilding	2.0
INFO 1210	Microsoft Word I	4.5
INFO 1212	Spreadsheet I	4.5
INFO 1216	Call Center Operations I	4.5
INFO 1226	Call Center Operations II	4.5
INFO 2985	Call Center Practicum I	4.0
INFO 2986	Call Center Practicum II	4.0

Below is a suggested guide for students planning a career as a call center specialist after one year of full-time study.

FIRST YEAR							
First Quarter		Second Quarter		Third Quarter		Fourth Quarter	
ENGL 1220	4.5	INFO 1210	4.5	INFO 1008	4.5	HMRL 1010	4.5
INFO 1001	4.5	INFO 1226	4.5	INFO 1011	4.5	INFO 1212	4.5
INFO 1013	2.0	MATH 1220	4.5	INFO 2985	4.0	INFO 2986	4.0
INFO 1216	4.5		13.5		3.0		13.0
	15.5						

Call Center Operations – Specialist Diploma (CCSSD)

Award: Specialist Diploma
Program location: Fort Omaha Campus

Requirements for Call Center Operations Diploma....26.5 Credit Hrs.

Courses		Credit Hrs.
INFO 1005	Keyboarding **OR**	
INFO 1013	Keyboard Skillbuilding	2.0
INFO 1210	Microsoft Word I	4.5
INFO 1216	Call Center Operations I	4.5
INFO 1226	Call Center Operations II	4.5
INFO 2985	Call Center Practicum I	4.0
INFO 2986	Call Center Practicum II	4.0
WORK 1400	Employability Skills	3.0

Computer Technology Transfer – Computer Science (CTSAS)

Award: Associate in Science Degree
Program location: Fort Omaha Campus, Sarpy Center, South Omaha Campus

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–Omaha (UNO) accept this degree. Areas of emphasis include Logic C, C++, VB, and COBOL.

GRADUATION REQUIREMENTS

General Education	42.5–44.0
Major Requirements	61.0
Total Credit Hours Required	**103.5–105.0**

General Education Requirements.....42.5–44.0* Credit Hrs.

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

Social Sciences	Credit Hrs.
Select two 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	Credit Hrs.
MATH 1420 College Algebra ◇	5.0

Natural Sciences	Credit Hrs.
Natural Sciences (see page 38)	6.0–7.5
CHEM 1010 or PHYS 110A-C recommended; students may waive hidden prerequisites.	

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

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

Major Requirements for Computer Technology Transfer – Computer Science.....61.0 Credit Hrs.

Courses	Credit Hrs.
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
Choose one course from each of the following two categories:	
Category I:	
INFO 1524 COBOL I^	5.0
INFO 1534 COBOL II^	5.0
Category II:	
INFO 1522 C++ Programming I	4.5
INFO 1532 C++ Programming II	4.5

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

◇Additional prerequisite(s) may be required.
^Course counts toward 9.0 semester hours (13.5 quarter hours) of the computer science core required at UNO or toward required electives.

Computer Technology Transfer – Information Assurance (CTIAS)

Award: Associate in Science Degree
Program location: Fort Omaha Campus, Sarpy Center, South Omaha Campus

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	39.5
Major Requirements	50.0
Total Credit Hours Required	**94.0**

General Education Requirements ..... 39.5 Credit Hrs.

Communications		Credit Hrs.	Social Sciences		Credit Hrs.
ENGL 1010	English Composition I	4.5	SOCI 1010	Introduction to Sociology **AND**	4.5
ENGL 1020	English Composition II	4.5	ECON 1000	Macroeconomics **OR**	
SPCH 1110	Public Speaking	4.5	ECON 1100	Microeconomics **OR**	
			PSYC 1010	Introduction to Psychology **OR**	
			SOCI 2050	Current Social Problems	
Quantitative/Numeracy Skills		**Credit Hrs.**	**Natural Sciences**		**Credit Hrs.**
MATH 1420	College Algebra ◇	5.0	PHYS 110	Principles of Physics 1A, 1B, 1C	7.5
Other		**Credit Hrs.**			
HMRL 1010	Human Relations Skills	4.5			
INFO 1001	Information Systems and Literacy	4.5			

Major Requirements for Computer Technology Transfer – Information Assurance .....50.0 Credit Hrs.

Courses		Credit Hrs.
INFO 1003	Introduction to Computer Programming	5.0
INFO 1110	Operating Systems I	4.5
INFO 1521	Java Programming I	4.5
INFO 1523	Visual Basic.NET I ◇	4.5
INFO 1620	Database Design, Implementation, and Management	4.5
INFO 2362	Building a Secure Environment	4.5
INFO 2537	Data Structures Using C and C++	4.5
INFO 2630	Structured Query Language (SQL)	4.5
INFO 2806	Network Attacks, Intrusion, and Penetration Testing	4.5
INFO 2808	Boundary Protection	4.5
INFO 2809	Information Systems, Forensics, and Legal Topics	4.5

◇ Additional prerequisite(s) may be required.

Computer Technology Transfer – Management Information Systems (CTMAS)

Award: Associate in Science Degree
Program location: Fort Omaha Campus, Sarpy Center
South Omaha Campus

This degree provides the student with the dual option of seeking entry-level programming positions and/or continuing his/her studies at a four-year institution. Currently, Bellevue University and the University of Nebraska–Omaha (UNO) accept this degree. Areas of emphasis include Logic C, C++, VB, and COBOL.

GRADUATION REQUIREMENTS

General Education	47.0–48.5
Major Requirements	53.5
Total Credit Hours Required	**100.5–102.0**

General Education Requirements.....47.0–48.5* Credit Hrs.

Communications	Credit Hrs.	Social Sciences	Credit Hrs.
ENGL 1010 English Composition I	4.5	ECON 1000 Macroeconomics	4.5
ENGL 1020 English Composition II	4.5	ECON 1100 Microeconomics	4.5
SPCH 1110 Public Speaking	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Natural Sciences**	**Credit Hrs.**
MATH 1420 College Algebra ◇	5.0	Natural Sciences (see page 38) *PHYS 110A-C is recommended.*	6.0– 7.5
Other	**Credit Hrs.**	**Cultural Diversity**	**Credit Hrs.**
HMRL 1010 Human Relations Skills	4.5	ENGL 2530 Ethnic Literature **OR**	4.5
INFO 1001 Information Systems and Literacy	4.5	HIST 1050 Introduction to Black History **OR**	
		HIST 1110 World Civilization to 1500 **OR**	
		HIST 1120 World Civilization 1500 to Present	

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

Major Requirements for Computer Technology Transfer – Management Information Systems.....53.5 Credit Hrs.

Courses		Credit Hrs.
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	Database Design, Implementation, and Management	4.5
INFO 2537	Data Structures Using C and C++	4.5
INFO 2630	Structured Query Language (SQL)	4.5
Choose one course from each of the two following categories:		
Category I:		
INFO 1524	COBOL I	5.0
INFO 1534	COBOL II	5.0
Category II:		
INFO 1522	C++ Programming I	4.5
INFO 1532	C++ Programming II	4.5

Students will be required to take an additional upper-division database-related course at UNO to meet UNO's degree requirements.

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

Students may waive hidden prerequisites for INFO classes.

◇Additional prerequisite(s) may be required.

Database Systems (DBSCE)

Award: Certificate of Achievement
Program location: Fort Omaha Campus, online

The Database Systems Certificate is designed to provide 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
Total Credit Hours Required	**50.0–50.5**

General Education Requirements.....18.0–18.5* Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	Humanities/Social Sciences (see page 38)	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1220 Business Math **OR**	4.5	INFO 1001 Information Systems and Literacy	4.5
MATH 1420 College Algebra ◇	5.0		

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

Major Requirements for Database Systems .....27.5 Credit Hrs.

Courses		Credit Hrs.
INFO 1003	Introduction to Computer Programming	5.0
INFO 1213	Database Fundamentals I	4.5
INFO 1620	Database Design, Implementation, and Management	4.5
INFO 2630	Structured Query Language (SQL)	4.5
INFO 2635	My SQL Programming	4.5
INFO 2641	SQL Server Design and Implementation	4.5

Option Requirements for Database Systems .....4.5 Credit Hrs.

Courses		Credit Hrs.
Select one course from the following:		
INFO 1023	Networking Essentials	4.5
INFO 1111	Linux Operating System I	4.5
INFO 1521	Java Programming I	4.5

Below is a suggested guide for students planning a career in database systems after one year of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
INFO 1001	4.5	INFO 1213	4.5	INFO 2630	4.5	INFO 2641	4.5
INFO 1003	5.0	INFO 1620	4.5	INFO 2635	4.5	MATH elective	4.5–5.0
ENGL Level I	4.5	Option requirement	4.5	Humanities/Social Science elective	4.5		9.0–9.5
	14.0		13.5		13.5		

COMPUTING / ELECTRONICS

Electronics Technology – Cisco Network Technician (ELNCO)

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

The Cisco Network Technician 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 Requirement	27.5
Total Credit Hours Required	**109.0**

General Education Requirements.....27.5 *Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	Humanities/Social Sciences (see page 38)	4.5
English Level II (see page 38)	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1420 College Algebra ◇	5.0	HMRL 1010 Human Relations Skills	4.5
		INFO 1001 Information Systems and Literacy	4.5

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

Major Requirements for Electronics Technology – Cisco Network Technician.....54.0 Credit Hrs.

Courses		Credit Hrs.
ELEC 1100	IT Essentials PC Repair I	4.5
ELEC 1110	IT Essentials PC Repair II	4.5
ELEC 1200	Cisco Networking 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	Operating Systems I	4.5
INFO 1120	Operating Systems II ◇	4.5

Option Requirements for Electronics Technology – Cisco Network Technician.....27.5 Credit Hrs.

Courses		Credit Hrs.
ELEC 2225	CCNA Security	4.5
INFO 1003	Introduction to Computer Programming	5.0
INFO 1111	Linux Operating Systems I	4.5
INFO 1121	Linux Operating Systems II	4.5
INFO 2135	Network Infrastructure	4.5
INFO 2142	Windows Active Directory	4.5

◇ Additional prerequisite(s) may be required.

The degree option is a specialization within a program. Although students may complete multiple options within this program, only the major degree is awarded.

Continued...

Below is a suggested guide for students planning a career as a network technician after two years of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
ELEC 1100	4.5	ELEC 1110	4.5	ELEC 1200	9.0	ELEC 1210	9.0
INFO 1001	4.5	English Level I	4.5	INFO 1110	4.5	HMRL 1010	4.5
MATH 1420	5.0	Humanities/Social Science elective	4.5		13.5		13.5
	14.0		13.5				
SECOND YEAR							
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**		**Eighth Quarter**	
ELEC 2220	9.0	ELEC 2230	4.5	INFO 2142	4.5	English Level II	4.5
INFO 1120	4.5	INFO 2135	4.5	Option requirement	9.0		4.5
	13.5		9.0		13.5		

Electronics Technology – Computer Electronics (ELCEO)

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

The Computer Electronics 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	54.0
Option Requirement	18.0
Total Credit Hours Required	**99.5**

General Education Requirements.....27.5 *Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	Humanities/Social Sciences (see page 38)	4.5
English Level II (see page 38)	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1420 College Algebra ◇	5.0	HMRL 1010 Human Relations Skills	4.5
		INFO 1001 Information Systems and Literacy	4.5

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

Major Requirements for Electronics Technology – Computer Electronics.....54.0 Credit Hrs.

Courses		Credit Hrs.
ELEC 1100	IT Essentials PC Repair I	4.5
ELEC 1110	IT Essentials PC Repair II	4.5
ELEC 1200	Cisco Networking 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	Operating Systems I	4.5
INFO 1120	Operating Systems II ◇	4.5

Option Requirements for Electronics Technology – Computer Electronics.....18.0 Credit Hrs.

Courses		Credit Hrs.
ELEC 1000	Basic Electricity and Electronics	9.0
ELEC 1010	Electronic Devices and Digital Circuits	9.0

◇ Additional prerequisite(s) may be required.

The certificate option is a specialization within a program. Although students may complete multiple options within this program, only the major degree is awarded.

Continued...

Below is a suggested guide for students planning a career in computer electronics after two years of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
ELEC 1100	4.5	ELEC 1110	4.5	ELEC 1000	9.0	ELEC 1010	9.0
INFO 1001	4.5	English Level I	4.5	INFO 1110	4.5	HMRL 1010	4.5
MATH 1420	5.0	Humanities/Social			13.5		13.5
	14.0	Science elective	4.5				
			13.5				
SECOND YEAR							
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**		**Eighth Quarter**	
ELEC 1200	9.0	ELEC 1210	4.5	ELEC 2220	9.0	ELEC 2230	9.0
English Level II	4.5	INFO 1120	4.5		9.0		9.0
	13.5		9.0				

Electronics Technology – Cisco Networking (ELCCO)

Award: Certificate of Achievement
Program location: South Omaha Campus

This Electronics Technology Certificate provides an intensive study of Cisco networking systems. Successful completion enables students to gain employment in the industry of networking.

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

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

Communications	Credit Hrs.	Quantitative/Numeracy Skills	Credit Hrs.
English Level I (see page 38)	4.5	MATH 1310 Intermediate Algebra	4.5
Other	**Credit Hrs.**		
INFO 1001 Information Systems and Literacy	4.5		

Major Requirements for Electronics Technology – Cisco Networking.....40.5 Credit Hrs.

Courses		Credit Hrs.
ELEC 1200	Cisco Networking 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	Operating Systems I	4.5

The certificate option is a specialization within a program. Although students may complete multiple options within this program, only the major degree is awarded.

Below is a suggested guide for students planning a career in Cisco networking after one year of full-time study.

FIRST YEAR							
First Quarter		Second Quarter		Third Quarter		Fourth Quarter	
ELEC 1200	9.0	ELEC 1210	9.0	ELEC 2220	9.0	ELEC 2230	9.0
INFO 1001	4.5	INFO 1110	4.5	English Level I	4.5	MATH 1310	4.5
	13.5		13.5		13.5		13.5

Electronics Technology – Microcomputer Repair (ELMCO)

Award: Certificate of Achievement
Program location: South Omaha Campus

This Microcomputer Repair 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 associate degree.

GRADUATION REQUIREMENTS	
General Education	13.5
Major Requirements	22.5
Option Requirements	18.0
Total Credit Hours Required	**54.0**

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

Communications	Credit Hrs.	Quantitative/Numeracy Skills	Credit Hrs.
English Level I (see page 38)	4.5	MATH 1310 Intermediate Algebra	4.5
Other	**Credit Hrs.**		
INFO 1001 Information Systems and Literacy	4.5		

Major Requirements for Electronics Technology – Microcomputer Repair .....22.5 Credit Hrs.

Courses		Credit Hrs.
ELEC 1100	IT Essentials PC Repair I	4.5
ELEC 1110	IT Essentials PC Repair II	4.5
ELEC 1200	Cisco Networking Fundamentals	9.0
INFO 1110	Operating Systems I	4.5

Option Requirements for Electronics Technology – Microcomputer Repair .....18.0 Credit Hrs.

Courses		Credit Hrs.
ELEC 1000	Basic Electricity and Electronics	9.0
ELEC 1010	Electronic Devices and Digital Circuits	9.0

The certificate option is a specialization within a program. Although the student may complete multiple options within this program, only the major degree is awarded.

Below is a suggested guide for students planning a career in microcomputer repair after one year of full-time study.

FIRST YEAR							
First Quarter		Second Quarter		Third Quarter		Fourth Quarter	
ELEC 1100	4.5	ELEC 1000	9.0	ELEC 1010	9.0	ELEC 1200	9.0
English Level I	4.5	ELEC 1110	4.5	INFO 1110	4.5	MATH 1310	4.5
INFO 1001	4.5		13.5		13.5		13.5
	13.5						

COMPUTING / ELECTRONICS

Electronics Technology (ECASD) – Specialist Diplomas

Award: Specialist Diploma
Program location: South Omaha Campus

Cisco Certified Network Associate (CCNA)

Completion of the Cisco Certified Network Associate Specialist Diploma will allow students to sit the certification exam for the Cisco Certified Network Associate.

Requirements for CCNA Diploma .....36.0 Credit Hrs.

Courses		Credit Hrs.
ELEC 1200	Cisco Networking Fundamentals	9.0
ELEC 1210	Cisco Routing	9.0
ELEC 2220	Cisco LAN Switching	9.0
ELEC 2230	Cisco Accessing the WAN	9.0

Embedded Systems Technology (ESTAS)

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 program 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	45.5
Option Requirements	31.5
Total Credit Hours Required	**104.0–104.5**

General Education Requirements.....27.0–27.5* Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	Humanities/Social Sciences (see page 38)	4.5
English Level II (see page 38)	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1220 Business Math **OR**	4.5	HMRL 1010 Human Relations Skills	4.5
MATH 1420 College Algebra	5.0	INFO 1001 Information Systems and Literacy	4.5
Students transferring to a four-year institutions must take MATH 1420.			

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

Major Requirements for Embedded Systems Technology .....45.5 Credit Hrs.

Courses		Credit Hrs.
INFO 1002	Introduction to Information Technology	4.5
INFO 1003	Introduction to Computer Programming	5.0
INFO 1023	Networking Essentials	4.5
INFO 1110	Operating Systems I	4.5
INFO 1111	Linux Operating System I	4.5
INFO 1120	Operating Systems II	4.5
INFO 1121	Linux Operating System II	4.5
INFO 1505	Introduction to Robotics	4.5
INFO 1700	Introduction to Gaming	4.5
INFO 2947	Embedded Systems Capstone	4.5

Continued...

Option Requirements for Embedded Systems Technology .....31.5 Credit Hrs.

Courses		Credit Hrs.
Choose 31.5 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	4.5
INFO 1515	Programming for Robotics I	4.5
INFO 1521	Java Programming I	4.5
INFO 1522	C++ Programming I	4.5
INFO 1526	Visual C# Programming I	4.5
INFO 1531	Java Programming II	4.5
INFO 1532	C++ Programming II	4.5
INFO 1536	Visual C# Programming II	4.5
INFO 1710	Developing Games and Graphics	4.5
INFO 2505	Programming for Robotics II	4.5
INFO 2539	Mobility Networks Programming	4.5
INFO 2710	Advanced Game Design	4.5

◇ Additional prerequisite(s) may be required.

Below is a suggested guide for students planning a career in embedded systems technology after one year of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
English Level I	4.5	INFO 1002	4.5	English Level II	4.5	HMRL 1010	4.5
INFO 1001	4.5	INFO 1003	5.0	INFO 1023	4.5	INFO 1120	4.5
MATH elective	4.5–5.0	INFO 1110	4.5	INFO 1111	4.5	Humanities/Social Science elective	4.5
	13.5–14.0		14.0		13.5		13.5
SECOND YEAR							
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**		**Eighth Quarter**	
INFO 1121	4.5	INFO 1700	4.5	Option requirement	4.5	INFO 2947	4.5
INFO 1505	4.5	Option	4.5	Option requirement	4.5	Option requirement	4.5
Option requirement	4.5	Option requirement	4.5	Option requirement	4.5		9.0
	13.5		13.5		13.5		

General Information Technology (GITAS)

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, helpdesk, database, web design, and computer programming fields.

GRADUATION REQUIREMENTS

General Education	27.0–27.5
Major Requirements	41.0
Option Requirements	36.0
Total Credit Hours Required	**104.0–104.5**

General Education Requirements.....27.0–27.5* Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	Humanities/Social Sciences (see page 38)	4.5
English Level II (see page 38)	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1220 Business Math **OR**	4.5	HMRL 1010 Human Relations Skills	4.5
MATH 1420 College Algebra	5.0	INFO 1001 Information Systems and Literacy	4.5
Students transferring to a four-year institution must take MATH 1420.			

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

Major Requirements for General Information Technology .....41.0 Credit Hrs.

Courses		Credit Hrs.
INFO 1002	Introduction to Information Technology	4.5
INFO 1003	Introduction to Computer Programming	5.0
INFO 1011	Project Management I	4.5
INFO 1023	Networking Essentials	4.5
INFO 1110	Operating Systems I	4.5
INFO 1311	XHTML and CSS	4.5
INFO 1315	Interface Design	4.5
INFO 1620	Database Design, Implementation, and Management	4.5
INFO 2351	Introduction to XML	4.5

Option Requirements for General Information Technology .....36.0 Credit Hrs.

Students are required to meet with designated faculty 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, Security Specialist Diploma, or the Electronics Technology Degree. Students must take 13.5 credit hours of advanced coursework plus a capstone course.

Continued...

Below is a suggested guide for students planning a career in general information technology after two years of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
INFO 1001	4.5	INFO 1002	4.5	INFO 1023	4.5	INFO 1011	4.5
INFO 1003	5.0	INFO 1110	4.5	INFO 1311	4.5	INFO 1315	4.5
Gen. Ed.	4.5	INFO 1620	4.5	Gen. Ed./INFO Elective	4.5	Gen. Ed./INFO Elective	4.5
	14.0		13.5		13.5		13.5
SECOND YEAR							
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**		**Eighth Quarter**	
INFO 2351	4.5	Gen. Ed./INFO Elective	4.5	Gen. Ed./INFO Elective	4.5	Gen. Ed./INFO Elective	
Gen. Ed./INFO Elective	4.5	Gen. Ed./INFO Elective	4.5	Gen. Ed./INFO Elective	4.5	4.5	
Gen. Ed./INFO Elective	4.5	INFO Elective	4.5	INFO Elective	4.5	INFO Elective	4.5
	13.5		13.5		13.5	INFO Elective	4.5
							13.5

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.

Health Information Technology – Specialist Diploma (HITSD)

Award: Specialist Diploma
Program location: online

Requirements for
Health Information Technology Diploma.....27.0 Credit Hrs.

Courses			Credit Hrs.
HITP	1010	Introduction to Health IT	4.5
HITP	1310	Principles of Healthcare Management	4.5
HITP	1410	Business Processes and Systems Analysis	4.5
Choose one set from the following courses:			
HITP	1510	Working with EHR Systems	4.5
HITP	1511	Workflow Redesign	4.5
HITP	1512	Usability and Health Information Systems	4.5
OR			
HITP	1511	Workflow Redesign	4.5
HITP	1615	Install, Maintain, and Configure EHRs	4.5
HITP	1702	Project Management and Leadership in HIT	4.5
OR			
HITP	1510	Working with EHR Systems	4.5
HITP	1615	Install, Maintain, and Configure EHRs	4.5
HITP	1616	Health Information Exchange	4.5
OR			
HITP	1510	Working with EHR Systems	4.5
HITP	1512	Usability and Health Information Systems	4.5
HITP	1701	Training and Instructional Design	4.5

IBM i Systems (CASC2)

Award: Certificate of Achievement
Program location: Fort Omaha Campus

The IBM i, IBM's most popular midrange computer, is designed to manage large databases. The IBM i Systems Certificate provides students with proficiency in IBM i operations, RPG, and control language programming.

GRADUATION REQUIREMENTS	
General Education	18.5
Major Requirements	36.5
Total Credit Hours Required	**55.0**

General Education Requirements.....18.5* Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	Humanities/Social Sciences (see page 38)	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1420 College Algebra ◇	5.0	INFO 1001 Information Systems and Literacy	4.5

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

Major Requirements for IBM I Systems.....36.5 Credit Hrs.

Courses		Credit Hrs.
INFO 1003	Introduction to Computer Programming	5.0
INFO 1112	Introduction to IBM i	4.5
INFO 1311	XHTML and CSS	4.5
INFO 1521	Java Programming I	4.5
INFO 1525	IBM i RPG Programming I	4.5
INFO 2549	IBM i Control Language Programming	4.5
INFO 2621	IBM i Database Management I	4.5
INFO 2761	Java Servlets and JSP	4.5

◇ Additional prerequisite(s) may be required.

Below is a suggested guide for students planning a career in IBM i systems after one year of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
English Level I	4.5	INFO 1112	4.5	INFO 1525	4.5	INFO 2549	4.5
INFO 1001	4.5	INFO 1311	4.5	INFO 2621	4.5	INFO 2761	4.5
INFO 1003	4.5	INFO 1521	4.5	MATH 1420	5.0	Humanities/Social Science elective	4.5
	13.5		13.5		14.0		13.5

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, helpdesk, database, web design, and computer programming fields.

GRADUATION REQUIREMENTS

General Education	27.0–27.5
Major Requirements	41.0
Option Requirements	6.0–40.5
Total Credit Hours Required	**104.0–109.0**

General Education Requirements.....27.0–27.5* Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	Humanities/Social Sciences (see page 38)	4.5
English Level II (see page 38)	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1220 Business Math **OR**	4.5	HMRL 1010 Human Relations Skills	4.5
MATH 1420 College Algebra ◇	5.0	INFO 1001 Information Systems and Literacy	4.5
Students transferring to a four-year institution must take MATH 1420.			

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

Major Requirements for Information Technology .....41.0 Credit Hrs.

Courses		Credit Hrs.
INFO 1002	Introduction to Information Technology	4.5
INFO 1003	Introduction to Computer Programming	5.0
INFO 1011	Project Management I	4.5
INFO 1023	Networking Essentials	4.5
INFO 1110	Operating Systems I	4.5
INFO 1311	XHTML and CSS	4.5
INFO 1315	Interface Design	4.5
INFO 1620	Database Design, Implementation, and Management	4.5
INFO 2351	Introduction to XML	4.5

◇Additional prerequisite(s) may be required.

Option Requirements for Information Technology.....36.0–40.5 Credit Hrs.

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

Data Center Management 36.0 credit hrs.	**Database Administration** 36.0 credit hrs.	**Desktop Specialist** 40.5 credit hrs.
e-Commerce 35.5–36.0 credit hrs.	**Helpdesk** 36.0 credit hrs.	**Programming for Database/Web** 36.0 credit hrs.
Server Administration 36.0 credit hrs.	**Web Development** 36.0 credit hrs.	

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, South Omaha Campus, online

Data centers are a critical part of today's data processing world. This program familiarizes students with the physical components, design, management, support, and operations in 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	41.0
Option Requirements	36.0

Total Credit Hours Required: 104.0–104.5

General Education Requirements ..... listed on page 131

Major Requirements for Information Technology ..... listed on page 131

Option Requirements for Information Technology – Data Center Management .....36.0 Credit Hrs.

Courses		Credit Hrs.
INFO 1400	Hardware, Disaster Recovery, and Troubleshooting	4.5
INFO 1401	Introduction to Data Center Management	4.5
INFO 1421	Virtualization, Remote Access, and Monitoring ◇	4.5
INFO 1431	Data Center Physical Design	4.5
INFO 2362	Web and Server Applications Security	4.5
INFO 2401	Applied Data Center Management	4.5
INFO 2801	Networking Security ◇	4.5
INFO 2990	Data Center Management Internship	4.5

◇ Additional prerequisite(s) may be required.

The degree option is a specialization within a program. Although students may complete multiple options within this program, only the major degree is awarded.

Below is a suggested guide for students planning a career in data center management after two years of full-time study.

FIRST YEAR							
First Quarter		Second Quarter		Third Quarter		Fourth Quarter	
English Level 1	4.5	INFO 1002	4.5	English Level II	4.5	HMRL 1010	4.5
INFO 1001	4.5	INFO 1110	4.5	INFO 1023	4.5	INFO 1011	4.5
INFO 1003	5.0	INFO 1620	4.5	INFO 1311	4.5	INFO 1315	4.5
	14.0		13.5		13.5		13.5
SECOND YEAR							
Fifth Quarter		Sixth Quarter		Seventh Quarter		Eighth Quarter	
INFO 1400	4.5	INFO 1421	4.5	INFO 1431	4.5	INFO 2900	4.5
INFO 1401	4.5	INFO 2362	4.5	INFO 2401	4.5	Humanities/Social Science elective	4.5
INFO 2351	4.5	MATH	4.5–5.0	INFO 2801	4.5		
	13.5		13.5–14.0		13.5		9.0

Information Technology – Database Administration (ITDAO)

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

Databases are the core of today's information systems and comprise one of the fastest growing areas of the information technology field. The Database Administration degree provides 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	41.0
Option Requirements	36.0
Total Credit Hours Required	**104.0–104.5**

General Education Requirements ..... listed on page 131

Major Requirements for Information Technology ..... listed on page 131

Option Requirements for Information Technology – Database Administration..36.0 Credit Hrs.

Courses			Credit Hrs.
Choose 18.0 credit hours from the following Level I courses:			
INFO	1021	Project Management II	4.5
INFO	1401	Introduction to Data Center Management	4.5
INFO	1521	Java Programming I	4.5
INFO	1522	C++ Programming I	4.5
INFO	1523	Visual Basic.NET I	4.5
INFO	2621	IBM i Database Management I	4.5
INFO	2630	Structured Query Language (SQL)	4.5
INFO	2635	MySQL Programming	4.5
Choose 13.5 credit hours from the following Level II courses:			
INFO	1531	Java Programming II	4.5
INFO	2362	Web and Server Applications Security	4.5
INFO	2538	System Analysis and Design	4.5
INFO	2631	IBM i Database Management II	4.5
INFO	2640	Oracle PL/SQL Programming	4.5
INFO	2641	SQL Server Design and Implementation	4.5
INFO	2651	Oracle Database Administration	4.5
INFO	2740	Oracle Web Application Development	4.5
INFO	2750	Introduction to Web Application Development	4.5
Required course:			
INFO	2945	Database Design and Administration Capstone	4.5

INFO 2945 is required for this program; it is the last course to be taken.

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

Continued...

Below is a suggested guide for students planning a career in database administration after two years of full-time study.

FIRST YEAR			
First Quarter	**Second Quarter**	**Third Quarter**	**Fourth Quarter**
INFO 1001 4.5	INFO 1002 4.5	INFO 1023 4.5	INFO 1011 4.5
INFO 1003 5.0	INFO 1110 4.5	INFO 1311 4.5	INFO 1315 4.5
Gen. Ed. 4.5	INFO 1620 4.5	Gen. Ed./Level I 4.5	Gen. Ed./Level I 4.5
14.0	13.5	13.5	13.5
SECOND YEAR			
Fifth Quarter	**Sixth Quarter**	**Seventh Quarter**	**Eighth Quarter**
INFO 2351 4.5	Gen. Ed./Level 1/Level II 4.5	Gen. Ed./Level 1/Level II 4.5	Gen. Ed./Level 1/Level II 4.5
Gen. Ed./Level 1/Level II 4.5	Gen. Ed./Level 1/Level II 4.5	Gen. Ed./Level 1/Level II 4.5	Level II 4.5
Gen. Ed./Level 1/Level II 4.5	Level II 4.5	Level II 4.5	INFO 2945 4.5
13.5	13.5	13.5	13.5

Information Technology – Desktop Specialist (ITDSO)

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

This degree prepares students to successfully manage a local/wide area network (LAN and WAN). Students are provided with a strong technical foundation in networking technologies.

GRADUATION REQUIREMENTS

General Education	27.0– 27.5
Major Requirements	41.0
Option Requirements	40.5
Total Credit Hours Required	**108.5–109.0**

General Education Requirements ..... listed on page 131

Major Requirements for Information Technology ..... listed on page 131

Option Requirements for Desktop Specialist .....40.5 Credit Hrs.

Courses		Credit Hrs.
INFO 1120	Operating Systems II	4.5
INFO 1400	Hardware, Disaster Recovery, and Troubleshooting	4.5
INFO 1421	Virtualization, Remote Access, and Monitoring	4.5
INFO 2261	Software Applications Support	4.5
INFO 2362	Web and Server Applications Security	4.5
INFO 2801	Networking Security ◇	4.5
INFO 2942	Network Capstone	4.5
Choose 9.0 credit hours from the following courses:		
INFO 1112	Introduction to IBM i	4.5
INFO 1431	Data Center Physical Design	4.5
INFO 1801	A+ Certified Professional I	4.5
INFO 1802	A+ Certified Professional II	4.5
INFO 2135	Network Infrastructure	4.5
INFO 2900	Special Topics in Information Technology	Variable
INFO 2981	Internship	Variable
INFO 2984	IT Student Assistant	Variable

◇Additional prerequisite(s) may be required.

The degree option is a specialization within a program. Although students may complete multiple options within this program, only the major degree is awarded.

Below is a suggested guide for students planning a career as a desktop specialist after two years of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
INFO 1001	4.5	INFO 1002	4.5	INFO 1023	4.5	INFO 1315	4.5
INFO 1003	5.0	INFO 1011	4.5	INFO 1120	4.5	INFO 1400	4.5
Gen. Ed.	4.5	INFO 1110	4.5	INFO 1311	4.5	INFO 1620	4.5
	14.0		13.5		13.5		13.5
SECOND YEAR							
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**		**Eighth Quarter**	
INFO 1421	4.5	INFO 2362	4.5	INFO 2801	4.5	INFO 2942	4.5
INFO 2261	4.5	INFO elective	4.5	INFO elective	4.5	Gen. Ed.	4.5
INFO 2351	4.5	Gen. Ed.	4.5	Gen. Ed.	4.5	Gen. Ed.	4.5
	13.5		13.5		13.5		13.5

Information Technology – e-Commerce (ITECO)

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

The e-Commerce degree prepares students to plan and develop a strong foundation in emerging technologies in the business environment. Graduates have working knowledge of e-commerce coupled with database, management of software, networking, programming, or web development.

GRADUATION REQUIREMENTS

General Education	27.0– 27.5
Major Requirements	41.0
Option Requirements	35.5– 36.0
Total Credit Hours Required	**103.5–104.5**

General Education Requirements ..... listed on page 131

Major Requirements for Information Technology ..... listed on page 131

Option Requirements for Information Technology – e-Commerce .....35.5–36.0 Credit Hrs.

Courses		Credit Hrs.
INFO 1004	Introduction to e-Commerce **OR**	
BSAD 1004	Introduction to e-Commerce	4.5
INFO 2941	e-Commerce Capstone **OR**	
BSAD 2941	e-Commerce Capstone	4.5
BSAD 1100	Business Law I	4.5
Track I: Business – Choose 8.5–9.0 credit hours from the following courses:		
ACCT 1100	Accounting I	4.0
BSAD 1010	Principles of Marketing	4.5
BSAD 1110	Business Law II	4.5
INFO 1010	Customer Service Skills	4.5
INFO 1401	Introduction to Data Center Management	4.5
PHIL 1030	Professional Ethics	4.5
Track II: Technical – Choose 13.5 credit hours from the following courses:		
INFO 1521	Java Programming I	4.5
INFO 1523	Visual Basic.NET I	4.5
INFO 1526	Visual C# Programming I	4.5
INFO 1620	Database Design, Implementation, and Management	4.5
INFO 2630	Structured Query Language (SQL)	4.5

The degree option is a specialization within a program. Although students may complete multiple options within this program, only the major degree is awarded.

Below is a suggested guide for students planning a career in e-commerce after two years of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
INFO 1001	4.5	INFO 1002	4.5	INFO 1004	4.5	INFO 1011	4.5
INFO 1003	5.0	INFO 1110	4.5	INFO 1023	4.5	INFO 1315	4.5
Gen. Ed.	4.5	INFO 1620	4.5	INFO 1311	4.5	Gen. Ed./Track I	4.5
	14.0		13.5		13.5		13.5
SECOND YEAR							
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**		**Eighth Quarter**	
INFO 2351	4.5	Gen. Ed./Track I/Track II	4.5	Gen. Ed./Track I/Track II	4.5	INFO 2941	4.5
Gen. Ed./Track I/Track II	4.5	Gen. Ed./Track I/Track II	4.5	Gen. Ed./Track I/Track II	4.5	Track II	4.5
Gen. Ed./Track I/Track II	4.5	Track II	4.5	Track II	4.5	Track II	4.5
	13.5		13.5		13.5		13.5

Information Technology – Helpdesk (ITHDO)

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

Companies are currently using computer career paths, which start with positions titled Helpdesk Support for Software and/or Hardware, Support Personnel for Mainframe and Microcomputers, Microcomputer Technician, and Software Support. Students completing this degree are provided with a strong technical foundation in microcomputer support and are prepared to successfully manage a software/hardware PC environment.

GRADUATION REQUIREMENTS

General Education	27.0–27.5
Major Requirements	41.0
Option Requirements	36.0
Total Credit Hours Required	**104.0–104.5**

General Education Requirements ..... listed on page 131

Major Requirements for Information Technology ..... listed on page 131

Option Requirements for Information Technology – Helpdesk .....36.0 Credit Hrs.

Courses			Credit Hrs.
INFO	1008	Business Office Communications	4.5
INFO	1010	Customer Service Skills	4.5
INFO	1120	Operating Systems II	4.5
INFO	1240	Integrated Applications for the Help Desk	4.5
INFO	2261	Software Applications Support	4.5
INFO	2981	Internship **OR**	
INFO	2983	Helpdesk Capstone	4.5
Choose 9.0 credit hours from the following courses:			
INFO	1005	Keyboarding	2.0
INFO	1210	Microsoft Word I	4.5
INFO	1212	Spreadsheet I	4.5
INFO	1213	Database Fundamentals I	4.5
INFO	1216	Call Center Operations I	4.5
INFO	1226	Call Center Operations II	4.5
INFO	1400	Hardware, Disaster Recovery, and Troubleshooting	4.5
INFO	1421	Virtualization, Remote Access, and Monitoring	4.5
INFO	2900	Special Topics in Information Technology	Variable
INFO	2984	IT Student Assistant	Variable
INFO	2985	Call Center Practicum I	4.0

The degree option is a specialization within a program. Although students may complete multiple options within this program, only the major degree is awarded.

Continued...

Below is a suggested guide for students planning a career in help desk after two years of full-time study.

FIRST YEAR			
First Quarter	**Second Quarter**	**Third Quarter**	**Fourth Quarter**
INFO 1001 4.5	INFO 1002 4.5	INFO 1023 4.5	HMRL 1010 4.5
INFO 1003 5.0	INFO 1110 4.5	INFO 1311 4.5	INFO 1011 4.5
English Level I 4.5	INFO 1620 4.5	English Level II 4.5	INFO 1315 4.5
14.0	13.5	13.5	13.5
SECOND YEAR			
Fifth Quarter	**Sixth Quarter**	**Seventh Quarter**	**Eighth Quarter**
INFO 1008 4.5	INFO 1240 4.5	INFO 2261 4.5	INFO 2981 **OR**
INFO 1120 4.5	INFO 1010 4.5	Elective 2.0– 4.5	INFO 2983 4.5
INFO 2351 4.5	Elective 2.0– 4.5	MATH elective 4.5	Humanities/Social
13.5	11.0– 13.5	11.0– 13.5	Science elective 4.5
			9.0

Information Technology – Programming for Database/Web (ITDWO)

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

This 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	41.0
Option Requirements	36.0
Total Credit Hours Required	**104.0–104.5**

General Education Requirements ..... listed on page 131

Major Requirements for Information Technology ..... listed on page 131

Option Requirements for Information Technology – Programming for Database/Web .....36.0 Credit Hrs.

Courses			Credit Hrs.
Choose 18.0 credit hours from the following Level I courses:			
INFO	1120	Operating System II	4.5
INFO	1401	Introduction to Data Center Management	4.5
INFO	1521	Java Programming I	4.5
INFO	1522	C++ Programming I	4.5
INFO	1523	Visual Basic.NET I	4.5
INFO	1526	Visual C# Programming I	4.5
INFO	1531	Java Programming II	4.5
INFO	1532	C++ Programming II	4.5
INFO	1533	Visual Basic.NET II	4.5
INFO	1536	Visual C# Programming II	4.5
Choose 13.5 credit hours from the following Level II courses:			
INFO	2538	System Analysis and Design	4.5
INFO	2539	Mobility Networks Programming	4.5
INFO	2635	MySQL Programming	4.5
INFO	2630	Structured Query Language (SQL)	4.5
INFO	2640	Oracle PL/SQL Programming	4.5
INFO	2740	Oracle Web Application Development	4.5
INFO	2750	Introduction to Web Application Development	4.5
INFO	2761	Java Servlets and JSP	4.5
Required course:			
INFO	2940	Database/Web Programming Capstone	4.5

INFO 2940 is required for the degree; however, it is the last course taken.

The degree option is a specialization within a program. Although students may complete multiple options within this program, only the major degree is awarded.

Continued...

Below is a suggested guide for students planning a career in programming for database/web after two years of full-time study.

FIRST YEAR			
First Quarter	**Second Quarter**	**Third Quarter**	**Fourth Quarter**
INFO 1001 4.5	INFO 1002 4.5	INFO 1023 4.5	INFO 1011 4.5
INFO 1003 5.0	INFO 1110 4.5	INFO 1311 4.5	INFO 1315 4.5
Gen. Ed. 4.5	INFO 1620 4.5	Gen. Ed./Level I 4.5	Gen. Ed./Level I 4.5
14.0	13.5	13.5	13.5
SECOND YEAR			
Fifth Quarter	**Sixth Quarter**	**Seventh Quarter**	**Eighth Quarter**
INFO 2351 4.5	Gen. Ed./Level 1/Level II 4.5	Gen. Ed./Level 1/Level II 4.5	INFO 2940 4.5
Gen. Ed./Level 1/Level II 4.5	Gen. Ed./Level 1/Level II 4.5	Gen. Ed./Level 1/Level II 4.5	Gen Ed/Level 1/Level II 4.5
Gen. Ed./Level 1/Level II 4.5	Level II 4.5	Level II 4.5	Level II 4.5
13.5	13.5	13.5	13.5

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 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	41.0
Option Requirements	36.0
Total Credit Hours Required	**104.0–104.5**

General Education Requirements ..... listed on page 131

Major Requirements for Information Technology ..... listed on page 131

Option Requirements for Information Technology – Server Administration .....36.0 Credit Hrs.

Courses		Credit Hrs.
INFO 1120	Operating Systems II	4.5
INFO 1400	Hardware, Disaster Recovery, and Troubleshooting	4.5
INFO 2135	Network Infrastructure	4.5
INFO 2142	Windows Active Directory	4.5
INFO 2145	Windows Server Administration	4.5
INFO 2261	Software Applications Support	4.5
INFO 2801	Networking Security	4.5
INFO 2942	Network Capstone	4.5

The degree option is a specialization within a program. Although students may complete multiple options within this program, only the major degree is awarded.

Below is a suggested guide for students planning a career in server administration after two years of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
INFO 1001	4.5	INFO 1002	4.5	INFO 1023	4.5	INFO 1315	4.5
INFO 1003	5.0	INFO 1011	4.5	INFO 1120	4.5	INFO 1620	4.5
Gen. Ed.	4.5	INFO 1110	4.5	INFO 1311	4.5	INFO 2135	4.5
	14.0		13.5		13.5		13.5
SECOND YEAR							
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**		**Eighth Quarter**	
INFO 2142	5.0	INFO 1400	4.5	INFO 2261	4.5	INFO 2942	4.5
INFO 2351	4.5	INFO 2145	4.5	INFO 2801	4.5	Gen. Ed.	4.5
Gen. Ed.	4.5	Gen. Ed.	4.5	Gen. Ed.	4.5		9.0
	13.5		13.5		13.5		

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	41.0
Option Requirements	36.0
Total Credit Hours Required	**104.0–104.5**

General Education Requirements ..... listed on page 131

Major Requirements for Information Technology ..... listed on page 131

Option Requirements for Information Technology – Web Development.....36.0 Credit Hrs.

Courses		Credit Hrs.
INFO 1314	Photoshop	4.5
INFO 1316	Dreamweaver	4.5
INFO 1319	Flash	4.5
INFO 2340	Internet Scripting and Databases	4.5
INFO 2362	Web and Server Applications Security	4.5
INFO 2750	Introduction to Web Application Development	4.5
INFO 2944	Web Development Capstone	4.5
Choose one of the following courses:		
INFO 1317	Microsoft Web Editors	4.5
INFO 1521	Java Programming I	4.5
INFO 1523	Visual Basic.NET I	4.5
INFO 1700	Introduction to Gaming	4.5
INFO 2135	Network Infrastructure	4.5
INFO 2630	Structured Query Language (SQL)	4.5
INFO 2635	MySQL Programming	4.5
INFO 2900	Special Topics in Information Technology	Variable
INFO 2981	Internship	Variable

The degree option is a specialization within a program. Although students may complete multiple options within this program, only the major degree is awarded.

Below is a suggested guide for students planning a career in web development after two years of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
INFO 1001	4.5	INFO 1002	4.5	INFO 1023	4.5	INFO 1011	4.5
INFO 1003	5.0	INFO 1110	4.5	INFO 1311	4.5	INFO 1315	4.5
Gen. Ed.	4.5	INFO 1620	4.5	Gen. Ed.	4.5	Gen. Ed.	4.5
	14.0		13.5		13.5		13.5
SECOND YEAR							
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**		**Eighth Quarter**	
INFO 1314	4.5	INFO 1316	4.5	INFO 1319	4.5	INFO 2944	4.5
INFO 2351	4.5	INFO 2340	4.5	INFO 2362	4.5	Gen. Ed.	4.5
MATH elective	4.5–5.0	Elective	4.5	INFO 2750	4.5	Elective	4.5
	13.5–14.0		13.5		13.5		13.5

Medical Records Technician – Specialist Diploma

Award: Specialist Diploma
Program location: online

Medical Records Technician Specialist Diploma (MRTSD)

The Medical Records Technician Specialist Diploma prepares students with the basic computer and employability skills needed for success in today's medical records department. Medical records and health information technicians organize and evaluate patient records for completeness and accuracy. This diploma gives students the knowledge to perform duties included in maintaining patient medical records.

Requirements for Medical Records Technician Diploma.....31.5 Credit Hrs.

Courses			Credit Hrs.
ENGL	1230	Business Writing	4.5
HITP	1005	Introduction to Record Keeping	4.5
HITP	1115	Using Electronic Health Records	4.5
HITP	1140	Understanding Healthcare	4.5
HITP	1160	Electronic Records Practices	4.5
INFO	1010	Customer Service Skills	4.5
Choose one of the following courses:			
INFO	1210	Microsoft Word I	4.5
INFO	1213	Database Fundamentals I	4.5

Microcomputer Technology (MCTCE)

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. The Microcomputer Technology Certificate is designed to teach the skills necessary to utilize microcomputers and their software in a variety of applications.

GRADUATION REQUIREMENTS

General Education	18.0–18.5
Major Requirements	13.5
Option Requirements	18.0– 23.0
Total Credit Hours Required	**49.5– 55.0**

General Education Requirements.....18.0–18.5* Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	Humanities/Social Sciences (see page 38)	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1220 Business Math **OR** MATH 1420 College Algebra ◇ *Students transferring to a four-year institution must take MATH 1420.*	4.5 5.0	INFO 1001 Information Systems and Literacy	4.5

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

Major Requirements for Microcomputer Technology.....13.5 Credit Hrs.

Courses		Credit Hrs.
INFO 1002	Introduction to Information Technology	4.5
INFO 1110	Operating Systems I	4.5
INFO 1311	XHTML and CSS	4.5

◇Additional prerequisite(s) may be required.

Option Requirements for Microcomputer Technology.....18.0–23.0 Credit Hrs.

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

Data Center Technician 23.0 credit hrs.	**Network Technician** 22.5 credit hrs.	**Security Technician** 22.5 credit hrs.
Server Technician 22.5 credit hrs.	**Web Author** 18.0 credit hrs.	

Microcomputer Technology – Data Center Technician (MCDCO)

Award: Certificate of Achievement
Program location: Fort Omaha Campus, Sarpy Center, South Omaha Campus, online

The Data Center Technician Certificate is designed to provide students with an introduction to data center operations. Students learn how to assist in monitoring and implementing data center projects.

GRADUATION REQUIREMENTS	
General Education	18.0– 18.5
Major Requirements	13.5
Option Requirements	23.0
Total Credit Hours Required	**54.5– 55.0**

General Education Requirements ..... listed on page 144

Major Requirements for Microcomputer Technology ..... listed on page 144

Option Requirements for Microcomputer Technology – Data Center Technician.....23.0 Credit Hrs.

Courses		Credit Hrs.
INFO 1003	Introduction to Computer Programming	5.0
INFO 1023	Networking Essentials	4.5
INFO 1400	Hardware, Disaster Recovery, and Troubleshooting	4.5
INFO 1401	Introduction to Data Center Management	4.5
INFO 2351	Introduction to XML	4.5

The certificate option is a specialization within a program. Although students may complete multiple options within this program, only the major degree is awarded.

Below is a suggested guide for students planning a career as a data center technician after one year of full-time study.

FIRST YEAR							
First Quarter		Second Quarter		Third Quarter		Fourth Quarter	
INFO 1001	4.5	INFO 1002	4.5	INFO 1023	4.5	INFO 1401	4.5
Gen. Ed.	4.5	INFO 1003	5.0	INFO 1311	4.5	INFO 2351	4.5
MATH elective	4.5–5.0	INFO 1110	4.5	INFO 1400	4.5	Gen. Ed.	4.5
	13.5– 14.0		14.0		13.5		13.5

Microcomputer Technology – Network Technician (MCNCO)

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

Microcomputers have become an integral part of today's office and home environment. The Network Technician option teaches the foundation skills necessary to work in and support a networked environment.

GRADUATION REQUIREMENTS	
General Education	18.0–18.5
Major Requirements	13.5
Option Requirements	22.5
Total Credit Hours Required	**54.0–54.5**

General Education Requirements ..... listed on page 144

Major Requirements for Microcomputer Technology ..... listed on page 144

Option Requirements for Microcomputer Technology – Network Technician .....22.5 Credit Hrs.

Courses		Credit Hrs.
INFO 1023	Networking Essentials	4.5
INFO 1120	Operating Systems II	4.5
INFO 1400	Hardware, Disaster Recovery, and Troubleshooting	4.5
INFO 1421	Virtualization, Remote Access, and Monitoring	4.5
Choose one of the following courses:		
INFO 2261	Software Applications Support	4.5
INFO 2362	Web and Server Applications Security	4.5
INFO 2801	Networking Security	4.5

The certificate option is a specialization within a program. Although students may complete multiple options within this program, only the major degree is awarded.

Below is a suggested guide for students planning a career as a network technician after one year of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
INFO 1001	4.5	INFO 1002	4.5	INFO 1023	4.5	INFO 1400	4.5
Gen. Ed.	4.5	INFO 1110	4.5	INFO 1120	4.5	INFO 1401	4.5
Gen. Ed.	4.5	INFO 1311	4.5	Gen. Ed.	4.5–5.0	INFO elective	4.5
	13.5		13.5		13.5–14.0		13.5

Microcomputer Technology – Security Technician (MCSTO)

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

The Security Technician Certificate emphasizes the issues and emerging information and management concepts related to computer security. Students are provided with a strong technical foundation to understand, analyze, identify, plan, and apply the knowledge and skills learned to defend a network.

GRADUATION REQUIREMENTS	
General Education	18.0–18.5
Major Requirements	13.5
Option Requirements	22.5
Total Credit Hours Required	**54.0–54.5**

General Education Requirements ..... listed on page 144

Major Requirements for Microcomputer Technology ..... listed on page 144

Option Requirements for Microcomputer Technology – Security Technician....22.5 Credit Hrs.

Courses		Credit Hrs.
INFO 2362	Web and Server Applications Security	4.5
INFO 2805	Network and Information Security Basics	4.5
INFO 2806	Network Attacks, Intrusions, and Penetration Testing	4.5
INFO 2808	Boundary Protection	4.5
INFO 2809	Information Systems, Forensics, and Legal Topics	4.5

The certificate option is a specialization within a program. Although students may complete multiple options within this program, only the major degree is awarded.

Below is a suggested guide for students planning a career as a security technician after one year of full-time study.

FIRST YEAR							
First Quarter		Second Quarter		Third Quarter		Fourth Quarter	
INFO 1001	4.5	INFO 1002	4.5	INFO 2362	4.5	INFO 2808	4.5
INFO 1110	4.5	INFO 1311	4.5	INFO 2806	4.5	INFO 2809	4.5
Gen. Ed.	4.5	INFO 2805	4.5	Gen. Ed.	4.5	Gen. Ed.	4.5
	13.5		13.5		13.5		13.5

Microcomputer Technology – Server Technician (MCSRO)

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. The Server Technician option teaches the foundation skills necessary to support servers.

GRADUATION REQUIREMENTS	
General Education	18.0–18.5
Major Requirements	13.5
Option Requirements	22.5
Total Credit Hours Required	**54.0–54.5**

General Education Requirements ..... listed on page 144

Major Requirements for Microcomputer Technology ..... listed on page 144

Option Requirements for Microcomputer Technology – Server Technician .....22.5 Credit Hrs.

Courses		Credit Hrs.
INFO 1023	Networking Essentials	4.5
INFO 1120	Operating Systems II	4.5
INFO 2135	Network Infrastructure	4.5
INFO 2142	Windows Active Directory	4.5
Choose one of the following courses:		
INFO 1400	Hardware, Disaster Recovery, and Troubleshooting	4.5
INFO 1421	Virtualization, Remote Access, and Monitoring	4.5
INFO 2145	Windows Server Administration	4.5
INFO 2801	Networking Security	4.5

The certificate option is a specialization within a program. Although students may complete multiple options within this program, only the major degree is awarded.

Below is a suggested guide for students planning a career as a server technician after one year of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
INFO 1001	4.5	INFO 1002	4.5	INFO 1023	4.5	INFO 2135	4.5
Gen. Ed.	4.5	INFO 1110	4.5	INFO 1120	4.5	INFO 2142	4.5
Gen. Ed.	4.5	INFO 1311	4.5	Gen. Ed.	4.5	Elective	4.5
	13.5		13.5		13.5		13.5

Microcomputer Technology – Web Author (MCWCO)

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

The Web Author Certificate prepares students to successfully create and edit information in the world wide web environment. Student are provided with a strong technical foundation in world wide web and Internet-related technology.

GRADUATION REQUIREMENTS	
General Education	18.0–18.5
Major Requirements	13.5
Option Requirements	18.0
Total Credit Hours Required	**49.5–50.0**

General Education Requirements ..... listed on page 144

Major Requirements for Microcomputer Technology ..... listed on page 144

Option Requirements for Microcomputer Technololgy – Web Author .....18.0 Credit Hrs.

Courses		Credit Hrs.
INFO 1314	Photoshop	4.5
INFO 1315	Interface Design	4.5
INFO 1316	Dreamweaver	4.5
INFO 2340	Internet Scripting and Databases ◇	4.5

◇Additional prerequisite(s) may be required.

The certificate option is a specialization within a program. Although students may complete multiple options within this program, only the major degree is awarded.

Below is a suggested guide for students planning a career as a web author after one year of full-time study.

FIRST YEAR							
First Quarter		Second Quarter		Third Quarter		Fourth Quarter	
INFO 1001	4.5	INFO 1002	4.5	INFO 1314	4.5	INFO 1316	4.5
INFO 1110	4.5	INFO 1311	4.5	INFO 1315	4.5	INFO 2340	4.5
Gen. Ed.	4.5	Gen. Ed.	4.5	Gen. Ed.	4.5		9.0
	13.5		13.5		13.5		

Microcomputer Technology – Specialist Diploma

Award: Specialist Diploma **Program location:** Fort Omaha Campus, online	

Network Security and Computer Forensics (MNSS1)

Network security has become an important part of the corporate environment to protect networked systems from intrusion and investigate possible intrusions. This program is designed to teach the skills necessary to secure networked systems to protect information and coordinate efforts with authorities to investigate intrusions for protection.

Requirements for Network Security Diploma .....27.0 Credit Hrs.

Courses			Credit Hrs.
INFO	2362	Web and Server Applications Security	4.5
INFO	2805	Network and Information Security Basics	4.5
INFO	2806	Network Attacks, Intrusions, and Penetration Testing	4.5
INFO	2808	Boundary Protection	4.5
INFO	2809	Information Systems, Forensics, and Legal Topics	4.5
INFO	2810	Security Planning: Assessment, Analysis, and Implementation	4.5

Transitional Object-Oriented Programming (MTOSD)

The Transitional Object-Oriented Programming Specialist Diploma is designed to provide traditional programmers with training in the object-oriented programming environment. Upon completion, students will program in one language and will be able to expand to other object-oriented programming languages.

Requirements for Transitional Object-Oriented Programming Diploma .....25.5 Credit Hrs.

Courses			Credit Hrs.
INFO	1007	Introduction to Transitional Object-Oriented Programming	3.0
INFO	1620	Database Design, Implementation, and Management ◈	4.5
INFO	2351	Introduction to XML ◈	4.5
INFO	2630	Structured Query Language (SQL) ◈	4.5
Choose one of the following pair of languages:			
INFO	1521	Java Programming I ◈ **AND**	4.5
INFO	1531	Java Programming II ◈	4.5
OR			
INFO	1523	Visual Basic.NET I ◈ **AND**	4.5
INFO	1533	Visual Basic.NET II ◈	4.5
OR			
INFO	1526	Visual C# Programming I ◈ **AND**	4.5
INFO	1536	Visual C# Programming II ◈	4.5

◈ Additional prerequisite(s) may be required.

Oracle Database Systems (ODBCE)

Award: Certificate of Achievement
Program location: Fort Omaha Campus

The Oracle Database Systems Certificate is designed to provide students with a strong foundation in various aspects of the Oracle Database Management System. The certificate program helps to prepare students for the Oracle Certified Associate (OCA) certification.

GRADUATION REQUIREMENTS

General Education	13.5–14.0
Major Requirements	36.5
Total Credit Hours Required	**50.0–50.5**

General Education Requirements ..... 13.5–14.0 Credit Hrs.

Communications	Credit Hrs.	Other	Credit Hrs.
English Level I (see page 38)	4.5	INFO 1001 Information Systems and Literacy	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
MATH 1220 Business Math **OR**	4.5		
MATH 1420 College Algebra ◇	5.0		

Major Requirements for Oracle Database Systems ...36.5 Credit Hrs.

Courses		Credit Hrs.
INFO 1003	Introduction to Computer Programming	5.0
INFO 1620	Database Design, Implementation, and Management	4.5
INFO 2632	Oracle SQL	4.5
INFO 2640	Oracle PL/SQL Programming ◇	4.5
INFO 2651	Oracle Database Administration	4.5
INFO 2740	Oracle Web Application Development	4.5
Choose two of the following courses:		
INFO 1023	Networking Essentials	4.5
INFO 1110	Operating Systems I	4.5
INFO 1111	Linux Operating System I	4.5
INFO 1311	XHTML and CSS ◇	4.5
INFO 1521	Java Programming I	4.5
INFO 2340	Internet Scripting and Databases ◇	4.5
INFO 2351	Introduction to XML ◇	4.5

◇ Additional prerequisite(s) may be required.

Below is a suggested guide for students planning a career in Oracle database systems after two years of study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
English Level I	4.5	INFO 1003	4.5	INFO 1620	4.5	INFO 2632	4.5
INFO 1001	4.5	MATH elective	4.5–5.0	INFO elective	4.5	INFO elective	4.5
	9.0		9.0–9.5		9.0		9.0
SECOND YEAR							
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**			
INFO 2640	4.5	INFO 2651	4.5	INFO 2740	4.5		
	4.5		4.5		4.5		

COMPUTING / ELECTRONICS

UNIX/Linux Operating Systems (LNXSC)

Award: Certificate of Achievement
Program location: Fort Omaha Campus

UNIX and Linux are very popular operating systems in the information world today. This certificate teaches the skill in using and operating these operating systems.

GRADUATION REQUIREMENTS

General Education	18.0–18.5
Major Requirements	32.0
Total Credit Hours Required	**50.0–50.5**

General Education Requirements.....18.0–18.5* Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	Humanities/Social Sciences (see page 38)	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1220 Business Math **OR**	4.5	INFO 1001 Information Systems and Literacy	4.5
MATH 1420 College Algebra ◇	5.0		

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

Major Requirements for UNIX/Linux Operating Systems.....32.0 Credit Hrs.

Courses		Credit Hrs.
INFO 1003	Introduction to Computer Programming	5.0
INFO 1110	Operating System I	4.5
INFO 1111	Linux Operating System I	4.5
INFO 1113	AIX Operating System I	4.5
INFO 1120	Operating Systems II	4.5
INFO 1121	Linux Operating System II	4.5
INFO 2122	Unix Scripting I	4.5

Below is a suggested guide for students planning a career in UNIX/Linux operating systems.

FIRST YEAR							
First Quarter		Second Quarter		Third Quarter		Fourth Quarter	
INFO 1001	4.5	INFO 1110	4.5	INFO 1111	4.5		
INFO 1003	5.0	INFO 1113	4.5	INFO 1120	4.5		
Gen. Ed.	4.5	Gen. Ed.	4.5	MATH elective	4.5–5.0		
	14.0		13.5		13.5–14.0		
SECOND YEAR							
Fifth Quarter		Sixth Quarter		Seventh Quarter		Eighth Quarter	
INFO 1121	4.5						
INFO 2122	4.5						
	9.0						

CULINARY/ HOSPITALITY/ HORTICULTURE

DEGREES IN THIS SECTION:

- Institute for the Culinary Arts
  - Culinary Arts Management
  - Hospitality and Restaurant Leadership
- Horticulture

OTHER RELATED DEGREES:

- Liberal Arts/Academic Transfer – Associate in Science
- Pre-Agriculture and Pre-Dietetics (see *Transfer Programs*)

Institute for the Culinary Arts

Award: Associate in Applied Science Degree

I. Culinary Arts and Management

The Culinary Arts and Management program offers three options that prepare students for a variety of careers in food service.

A. Culinary Arts[1] (106.5 credit hrs.)	Prepares students for a career as a chef, sous chef, or culinarian.
B. Baking and Pastry[1] (106.5 credit hrs.)	Prepares students for a career as a professional baker or pastry chef.
C. Culinology Transfer[2] (107.5 credit hrs.)	Prepares students to work in a research lab as part of a food development team. Success in the option requires that students have a strong interest in both foods and sciences.

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 by starting at the stove and finishing wherever their goals take them.

A. Food and Event Management (106.0–107.5 credit hrs.)	This option is designed to prepare students to become leaders in the career fields of restaurant manager, event coordinator, hospitality consultant, beverage director, or many other varied careers.
B. Hospitality Entrepreneurship (108.0–109.5 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 transfers to the University of Nebraska–Lincoln for completion of the Bachelor's Degree in Dietetics. For more information on degree requirements, contact the Dean of Culinary Arts at (402) 457-2510.

[1] **These options are accredited by the American Culinary Federation Education Institute Accrediting Commission.**
[2] **This option is recognized by the Research Chefs Association and is transferable to the University of Nebraska–Lincoln.**

Credits and degrees may transfer to many other colleges, including the University of Nebraska–Lincoln and Bellevue University.

Contact (402) 457-2510 to schedule an appointment to discuss career and educational goals.

Culinary Arts and Management (CAAS1)

Award: Associate of Applied Science
Program location: Fort Omaha Campus

The Culinary Arts and Management program offers three options that prepare students for a variety of careers in food service: (1) Culinary Arts, (2) Baking and Pastry and (3) Culinology Transfer.

GRADUATION REQUIREMENTS	
General Education	27.0
Major Requirements	41.5
Option Requirements	38.0–39.0
Total Credit Hours Required	**106.5–107.5**

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

Communications	Credit Hrs.
English Level I (see page 38)	4.5
English Level II (see page 38)	4.5
ENGL 1220 Technical Writing and ENGL 1240 Oral and Written Reports are recommended.	
Transfer students select ENGL 1010 and ENGL 1020.	

Humanities/Social Sciences	Credit Hrs.
Humanities/Social Sciences (see page 38)	4.5
Culinology transfer students select ECON 1000 or 1100 for Social Sciences requirement.	

Quantitative/Numeracy Skills	Credit Hrs.
MATH 1220 Business Mathematics	4.5
Transfer students select MATH 1420.	

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

*Culinary-focused general education courses are designated in the class schedule by the section number CA.

Major Requirements for Culinary Arts and Management.....41.5 Credit Hrs.

Courses		Credit Hrs.
CHRM 1000	CHRM Orientation	2.0
CHRM 1020	Sanitation	2.0
CHRM 1030	Culinary Foundations I	4.0
CHRM 1035	Culinary Foundations II	4.0
CHRM 1210	Baking Basics	4.0
CHRM 2000	Stagiaire	2.0
CHRM 2350	Nutrition	4.5
CHRM 2460	Cost Management	4.5
CHRM 2480	Purchasing	4.5
CHRM 2650	Banquet and Catering	4.0
CHRM 2981	Internship	3.0
HORT 1410	Food Cultivation	3.0

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

Critical Advising Note: Students entering Culinary Arts programs that have assessed at college-level in all areas and/or completed any recommended developmental courses should register for CHRM 1000, CHRM 1020, CHRM 1030, and MATH 1220 in their first term of study. Approved uniforms, supplies, and text are required by the first day of CHRM 1030.

Option Requirements for Culinary Arts and Management.....38.0–39.0 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.

Bakery and Pastry	Culinary Arts	Culinology™ Transfer
38.0 credit hrs.	38.0 credit hrs.	39.0 credit hrs.

Culinary Arts and Management Options

Culinary Arts (CACA1) 38.0

CHRM 1120	Soup and Sauce Cookery	3.0
CHRM 1130	Protein Fabrication	3.0
CHRM 1140	À la Carte Cookery	3.0
CHRM 1999	Skills Demonstration for Culinarians	2.0
CHRM 2110	Quantity Production	4.0
CHRM 2120	Garde Manger	4.0
CHRM 2130	Fine Dining	4.0
CHRM 2470	Hospitality Supervision	4.5
CHRM 2550	Table Service	4.0
CHRM 2980	Student Manager	4.5
CHRM 2999	Portfolio Development for Culinarians	2.0

Baking and Pastry (CABA2) 38.0

CHRM 1220	Pastries	3.0
CHRM 1250	Artisan Bread	4.0
CHRM 1260	Cakes	4.0
CHRM 1990	Skills Demonstration for Bakers	2.0
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 2470	Hospitality Supervision	4.5
CHRM 2982	Bakery Student Manager	4.5
CHRM 2990	Portfolio Development for Bakers	2.0

Culinary Research/Culinology Transfer (CACR1) 39.0

CHEM 1212	General Chemistry I: Accelerated	6.0
CHRM 1120	Soup and Sauce Cookery	3.0
CHRM 1130	Protein Fabrication	3.0
CHRM 1140	À la Carte Cookery	3.0
CHRM 2120	Garde Manger	4.0
CHRM 2360	Physiology of Flavor	4.5
CHRM 2370	Food Science★	4.5
CHRM 2380	Sensory Science★ *(Winter only)*	4.5
CHRM 2390	Research and Development of Food Products★ *(Spring only)*	4.5
CHRM 2999	Portfolio Development for Culinarians	2.0

After completion of the Culinology degree option at MCC, the Restaurant Chef's Association strongly recommends that students seeking to become a research chef achieve a four-year degree from the University of Nebraska or other university.

Students expecting to transfer to the University of Nebraska–Lincoln for Culinology should also take CHEM 1220.

★*CHRM 2370, CHRM 2380, and CHRM 2390 should be taken in sequence starting in the Fall quarter.*

Below is a suggested guide for students planning a career in culinary arts after two years of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
CHRM 1000	2.0	CHRM 1035	4.0	CHRM 1120	3.0	CHRM 1140	3.0
CHRM 1020	2.0	CHRM 1210	4.0	CHRM 1130	3.0	CHRM 1999	2.0
CHRM 1030	4.0	CHRM 2350	4.0	HORT 1410	3.0	CHRM 2460	4.5
MATH 1220	4.5	Humanities	4.5	INFO 1001	4.5	ENGL 1220 CA	4.5
	12.5		16.5		13.5		14.0
SECOND YEAR							
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**		**Eighth Quarter**	
CHRM 2000	2.0	CHRM 2110	4.0	CHRM 2130	4.0	CHRM 2980	4.5
CHRM 2470	4.5	CHRM 2120	4.0	CHRM 2550	4.0	CHRM 2981	3.0
CHRM 2650	4.0	CHRM 2480	4.5	HRML 1010	4.5	CHRM 2999	2.0
	10.5		12.5		12.5	ENGL 1240 CA	4.5
							14.0

Below is a suggested guide for students planning a career in bakery and pastry after two years of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
CHRM 1000	2.0	CHRM 1035	4.0	CHRM 1220	3.0	CHRM 1260	4.0
CHRM 1020	2.0	CHRM 1210	4.0	CHRM 1250	4.0	CHRM 1990	2.0
CHRM 1030	4.0	CHRM 2350	4.5	HORT 1410	3.0	CHRM 2460	4.5
MATH 1220	4.5	Humanities	4.5	INFO 1001	4.5	ENGL 1220 CA	4.5
	12.5		17.0		14.5		15.0
SECOND YEAR							
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**		**Eighth Quarter**	
CHRM 2000*	2.0	CHRM 2000*	2.0	CHRM 2280	4.0	CHRM 2980	3.0
CHRM 2470*	4.5	CHRM 2230	4.0	CHRM 2250/2270	3.0	CHRM 2982	.5
CHRM 2650*	4.0	CHRM 2250/2270	3.0	CHRM 2650*	4.0	CHRM 2990	2.0
	10.5	CHRM 2470*	4.5	HRML 1010	4.5	ENGL 1240 CA	4.5
		CHRM 2480	4.5		15.5		14.0
			18.0				

*For students seeking to study full-time in the second year, the fifth quarter classes may be reallocated.

Below is a suggested guide for students planning a career in culinology after two years of full-time study.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
CHRM 1000	2.0	CHRM 1035	4.0	CHEM 1212	6.0	CHRM 1140	3.0
CHRM 1020	2.0	CHRM 1210	4.0	CHRM 1120	3.0	CHRM 1999	2.0
CHRM 1030	4.0	CHRM 2350	4.5	CHRM 1130	3.0	CHRM 2460	4.5
MATH 1220	4.5	Humanities	4.5	HORT 1410	3.0	INFO 1001	4.5
	12.5		17.0		15.0		14.0
SECOND YEAR							
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**		**Eighth Quarter**	
CHEM 1220^	6.0	CHRM 2480	4.5	CHRM 2390 *(Spring only)*	4.5	CHRM 2470	4.5
CHRM 2000	2.0	CHRM 2380 *(Winter only)*	4.5	ENGL 1020	4.5	CHRM 2981	3.0
CHRM 2360	4.5	ENGL 1010	4.5	HMRL 1010	4.5	CHRM 2999	2.0
CHRM 2370	4.5		13.5		13.5		9.5
	17.0						

^Optional

Culinary Arts and Management (CAMCE)

Award: Certificate of Achievement
Program location: Fort Omaha Campus

The Culinary Arts and Management Certificate 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	36.0
Total Credit Hours Required	**49.5**

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

Communications	Credit Hrs.	Quantitative/Numeracy Skills	Credit Hrs.
English Level I (see page 38)	4.5	Mathematics (see page 38)	4.5
Humanities/Social Sciences	**Credit Hrs.**		
Humanities/Social Sciences (see page 38)	4.5		

Major Requirements for Culinary Arts and Management.....36.0 Credit Hrs.

Courses		Credit Hrs.
CHRM 1000	CHRM Orientation	2.0
CHRM 1020	Sanitation	2.0
CHRM 1030	Culinary Foundations I	4.0
CHRM 1035	Culinary Foundations II	4.0
CHRM 1120	Soup and Sauce Cookery	3.0
CHRM 1130	Protein Fabrication	3.0
CHRM 1140	À la Carte Cookery	3.0
CHRM 1210	Baking Basics	4.0
CHRM 1999	Skills Demonstration for Culinarians	2.0
CHRM 2350	Nutrition	4.5
CHRM 2460	Cost Management	4.5

Baking and Pastry (CBPCE)

Award: Certificate of Achievement
Program location: Fort Omaha Campus

The Baking and Pastry Certificate 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	35.0
Total Credit Hours Required	**48.5**

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

Communications	Credit Hrs.	Quantitative/Numeracy Skills	Credit Hrs.
English Level I (see page 38)	4.5	Mathematics (see page 38)	4.5
Humanities/Social Sciences	**Credit Hrs.**		
Humanities/Social Sciences (see page 38)	4.5		

Major Requirements for Baking and Pastry Certificate.....35.0 Credit Hrs.

Courses		Credit Hrs.
CHRM 1000	CHRM Orientation	2.0
CHRM 1020	Sanitation	2.0
CHRM 1030	Culinary Foundations I	4.0
CHRM 1210	Baking Basics	4.0
CHRM 1220	Pastries	4.0
CHRM 1250	Artisan Breads	4.0
CHRM 1260	Cakes	4.0
CHRM 1990	Skills Demonstration for Bakers	2.0
CHRM 2350	Nutrition	4.5
CHRM 2460	Cost Management	4.5

Culinary Arts and Management– Specialist Diplomas

Award: Specialist Diploma
Program location: Fort Omaha Campus

Culinary Arts Foundations (CAFSD)

Also referred to as the first-year diploma or basic Culinary Arts diploma. Course prerequisites may be required to begin the specialization. Students seeking acceptance into first-year cohorts must possess a specialist diploma.

Requirements for Culinary Arts Foundations Diploma .....29.5 Credit Hrs.

Courses		Credit Hrs.
CHRM 1000	CHRM Orientation	2.0
CHRM 1020	Sanitation	2.0
CHRM 1030	Culinary Foundations I	4.0
CHRM 1035	Culinary Foundations II	4.0
CHRM 1210	Baking Basics	4.0
CHRM 2350	Nutrition	4.5
Humanities/Social Science		4.5
Math		4.5

Culinary Entrepreneurship (CAESD)

The Culinary Entrepreneurship Specialist Diploma is designed for culinary professionals who desire to own their own businesses and to be their own boss. Course prerequisites may be required to begin the specialization.

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

Courses		Credit Hrs.
CHRM 2460	Cost Management	4.5
CHRM 2465	Foodservice Financial Management	4.5
CHRM 2480	Purchasing	4.5
ENTR 1050	Introduction to Entrepreneurship	4.5
ENTR 2040	Entrepreneurship Feasibility Study	4.5
ENTR 2090	Entrepreneurship Business Plan	4.5

Culinary Competition (CACSD)

The Culinary Competition Specialist Diploma is designed to recognize students that dedicate themselves to refining and delivering their craft through the rigor of sanctioned culinary competitions.

Requirements for Culinary Competition Diploma .....26.0 Credit Hrs.

Courses		Credit Hrs.
CHRM 1020	Sanitation	2.0
CHRM 1030	Culinary Foundations I	4.0
CHRM 1210	Baking Basics	4.0
CHRM 297A	Competition Training Camp	1.0
CHRM 2970	Culinary Competition *(Summer only)*	3.0
CHRM 2971	Advanced Culinary Competition I	3.0
CHRM 2972	Advanced Culinary Competition II	3.0
CHRM 2973	Advanced Culinary Competition III	3.0
CHRM 2974	Advanced Culinary Competition IV	3.0

ManageFirst (CAMSD)

The ManageFirst Specialist Diploma is designed for culinary professionals as an opportunity to further their education, enhance their career, improve customer service, and stay competitive in the marketplace. To receive the National Restaurant Association's ManageFirst Credential, 800 hours of industry work must be logged and a separate application process completed. Contact (402) 457-2510 for complete details.

Requirements for ManageFirst Diploma .....28.5 Credit Hrs.

Courses		Credit Hrs.
CHRM 1020	Sanitation	2.0
CHRM 1030	Culinary Foundations I	4.0
CHRM 2350	Nutrition	4.5
CHRM 2460	Cost Management	4.5
CHRM 2470	Hospitality Supervision	4.5
CHRM 2475	Leadership Principles	4.5
CHRM 2480	Purchasing	4.5

Specialization in Service (CASSD)

The Specialization in Service Specialist Diploma is for students that wishes to acquire skills in dining room supervision. Course prerequisites are required to begin the specialization.

Requirements for Service Diploma.....24.5 Credit Hrs.

Courses		Credit Hrs.
CHRM 2470	Hospitality Supervision	4.5
CHRM 2475	Leadership Principles	4.5
CHRM 2550	Table Service	4.0
CHRM 2560	Beverage Management	3.0
CHRM 2650	Banquet and Catering	4.0
INFO 1010	Customer Service Skills	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's of Science in Hospitality, Restaurant, and Tourism Management.

GRADUATION REQUIREMENTS

General Education	27.0
Major Requirements	58.5–60.0
Course Track Offerings	20.5–22.5
Total Credit Hours Required	**106.0–109.5**

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

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	Humanities/Social Sciences (see page 38)	4.5
English Level II (see page 38)	4.5	*Transfer students select ECON 1000 or 1100 for Social Sciences requirement.*	
ENGL 1220 CA Technical Writing and ENGL 1240 CA Oral and Written Report for Culinarians are recommended. Transfer students select ENGL 1010 and 1020.			
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1220 Business Mathematics	4.5	HMRL 1010 Human Relations Skills	4.5
Transfer students select MATH 1420.		INFO 1001 Information Systems and Literacy	4.5

*Hospitality-focused general education courses are designated in the class schedule by the section number CA.

Major Requirements for Hospitality and Restaurant Leadership .....58.5–60.0 Credit Hrs.

Courses		Credit Hrs.
ACCT 1100	Accounting I ◇	4.5
BSAD 1010	Principles of Marketing ◇	4.5
BSAD 1100	Business Law I	4.5
CHRM 1000	CHRM Orientation	2.0
CHRM 1020	Sanitation	2.0
CHRM 1030	Culinary Foundations I	4.0
CHRM 2460	Cost Management	4.5
CHRM 2465	Foodservice Financial Management	4.5
CHRM 2470	Hospitality Supervision	4.5
CHRM 2475	Leadership Principles	4.5
CHRM 2480	Purchasing	4.5
CHRM 2550	Table Service	4.0
CHRM 2560	Beverage Management	3.0
CHRM 2980	Student Manager	4.5
CHRM 2981	Internship **OR**	3.0
CHRM 2910	Restaurant Consulting Practicum	4.5

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

◇Additional prerequisite(s) may be required.

Requirements for Hospitality and Restaurant Leadership Options .....20.5–22.5 Credit Hrs.

In pursuing the Hospitality and Restaurant Leadership Degree, students may select from the menu of options listed below. See the following pages for the specific additional courses required within each option.

Food and Event Management	Hospitality Entrepreneurship
20.5 credit hrs.	22.5 credit hrs.

Hospitality and Restaurant Leadership Options

Food and Event Management (CHFA1) 20.5

This option is designed to prepare students to become leaders in the career fields of restaurant manager, event coordinator, hospitality consultant, beverage director, or many other varied careers.

CHRM 1140	À la Carte Cookery	3.0
CHRM 2350	Nutrition	4.5
CHRM 2610	Event Planning	4.5
CHRM 2650	Banquet and Catering	4.0
PHIL 2030	Introduction to Ethics	4.5

Hospitality Entrepreneurship (CHBA1) 22.5

This option provides the entrepreneurial education for students wanting to own and operate a business in the hospitality industry.

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

Horticulture Studies

Award: Associate in Applied Science Degree

The Horticulture program prepares students for careers in the vast horticulture industry. Studies include production, handling, sales, harvesting, packaging, shipping, management, and maintenance depending upon the option of study.

I. Horticulture Associate Degrees

The Horticulture program prepares students for careers in nursery or landscaping businesses by focusing on production, handing, sales, selection, and maintenance of materials and products.

A. Landscaping (104.5 credit hrs.)	The Landscaping option focuses on the identification and use of woody ornamentals and herbaceous plant material. Landscape designs, installation, and maintenance are among the operations and practices covered.
B. Horticulture Management (107.5 credit hrs.)	The Horticulture Management option focuses on the management and production, handling, sale, and use of plants.
C. Floriculture (99.5 credit hrs.)	The Floriculture option focuses on the production, handling, sale, and use of greenhouse crops, flower crops, bedding crops, and foliage plants. Greenhouse crop production, floral design, and interiorscaping are emphasized.

II. Horticulture Certificate (49.5 credit hrs.)

The Horticulture Certificate prepares students to work in a nursery or landscaping business by providing instruction that focuses on production, handling, sale, and use of crops, plants, and woody ornamentals. Propagation, planting, cultural practices, harvesting, packaging, shipping, and maintenance are all covered.

III. Horticulture Specialist Diploma

Arboriculture (27.0 credit hrs.)
Floriculture (25.0 credit hrs.)
Landscape and Grounds Management (24.0 credit hrs.)
Landscaping (27.0 credit hrs.)
Nursery Management (28.5 credit hrs.)
Organic Gardening (27.0 credit hrs.)
Plant Production and Propagation (27.0 credit hrs.)
Professional Landscape Design (27.0 credit hrs.)

Horticulture (HOAAS)

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

The Horticulture Certificate prepares students to work in a nursery or landscaping business by providing instruction that focuses on production, handling, sale, and use of crops, plants, and woody ornamentals. Propagation, planting, cultural practices, harvesting, packaging, shipping, and maintenance are all covered.

GRADUATION REQUIREMENTS	
General Education	27.0
Major Requirements	42.0
Course Track Offerings	25.0–33.0
Total Credit Hours Required	**94.0–102.0**

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

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	Humanities/Social Sciences (see page 38)	4.5
English Level II (see page 38)	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1240 Applied Mathematics	4.5	HMRL 1010 Human Relations Skills	4.5
		INFO 1001 Information Systems and Literacy	4.5

Major Requirements for Horticulture.....42.0 Credit Hrs.

Courses		Credit Hrs.
BIOS 1410	The Biology of Lower Plants	4.5
HORT 1100	Introduction to Horticulture	6.0
HORT 1110	Perennials: Culture and Identification *(Fall only)*	3.0
HORT 1112	Annuals: Culture and Identification	3.0
HORT 1113	Turfgrass Management	3.0
HORT 2120	Plant Propagation by Seed *(Fall only)*	3.0
HORT 2121	Vegetative Plant Propagation *(Winter only)*	3.0
HORT 2130	Horticulture Business Operations	4.5
HORT 2216	Horticulture Diseases *(Fall only)*	4.5
HORT 2217	Horticulture Insects *(Spring only)*	4.5
HORT 2981	Internship	3.0

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

Students must have completed BIOS 2410 and BIOS 2510 before taking HORT 2120.

Option Requirements for Horticulture.....25.0–33.0 Credit Hrs.

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

Floriculture	Horticulture Management	Landscaping
25.0 credit hours	33.0 credit hours	30.0 credit hours

Horticulture – Floriculture (HOFLO)

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

The Floriculture option focuses on the production, handling, sale, and use of greenhouse crops, flower crops, bedding crops, and foliage plants. Greenhouse crop production, floral design, and interiorscaping are emphasized.

GRADUATION REQUIREMENTS	
General Education	27.0
Major Requirements	42.0
Option Requirements	25.0
Total Credit Hours Required	**94.0**

General Education Requirements..... listed on page 165

Major Requirements for Horticulture..... listed on page 165

Option Requirements for Floriculture .....25.0 Credit Hrs.

Courses		Credit Hrs.
HORT 1215	Interiorscaping and Houseplants *(Fall only)*	4.0
HORT 1300	Floral Design I	3.0
HORT 1310	Floral Design II *(Winter only)*	3.0
HORT 1320	Floral Design III *(Spring only)*	3.0
HORT 1330	Floral Design IV *(Spring only)*	3.0
HORT 1650	Therapeutic Horticulture	3.0
HORT 2530	Greenhouse Crop Production	3.0
HORT 2540	Flower Shop Operations *(Fall only)*	3.0

The degree option is a specialization within a program. Although students may complete multiple options within this program, only the major degree is awarded.

Horticulture – Landscaping (HOLAO)

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

The Landscaping option focuses on the identification and use of woody ornamentals and herbaceous plant material. Landscape designs, installation, and maintenance are among the operations and practices covered.

GRADUATION REQUIREMENTS	
General Education	27.0
Major Requirements	42.0
Option Requirements	30.0
Total Credit Hours Required	**99.0**

General Education Requirements ..... listed on page 165

Major Requirements for Horticulture ..... listed on page 165

Option Requirements for Landscaping .....30.0 Credit Hrs.

Courses		Credit Hrs.
HORT 1210	Trees: Culture and Identification *(Fall only)*	3.0
HORT 1211	Evergreens and Groundcovers: Culture and Identification *(Winter only)*	3.0
HORT 1212	Shrubs: Culture and Identification *(Spring only)*	3.0
HORT 2420	Landscape Construction *(Spring only)*	3.0
HORT 2430	Residential Landscaping *(Fall only)*	3.0
HORT 2440	Advanced Landscaping *(Winter only)*	3.0
HORT 2521	Managing the Landscape *(Winter only)*	3.0
HORT 2522	Landscapes: Ecology and Sustainability *(Spring only)*	3.0
HORT 2523	Landscapes: Environmental *(Fall only)*	3.0
HORT 2450	Computer Landscaping Design	3.0

The degree option is a specialization within a program. Although students may complete multiple options within this program, only the major degree is awarded.

Horticulture – Horticulture Management (HONM1)

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

The Horticulture Management option focuses on the management and production, handling, sale, and use of plants.

GRADUATION REQUIREMENTS	
General Education	27.0
Major Requirements	42.0
Option Requirements	33.0
Total Credit Hours Required	**102.0**

General Education Requirements..... listed on page 165

Major Requirements for Horticulture..... listed on page 165

Option Requirements for Horticulture Management..33.0 Credit Hrs.

Courses		Credit Hrs.
HORT 1210	Trees: Culture and Identification *(Fall only)*	3.0
HORT 1211	Evergreens and Groundcovers: Culture and Identification *(Winter only)*	3.0
HORT 1212	Shrubs: Culture and Identification *(Spring only)*	3.0
HORT 1213	Ornamental Grass: Culture and Identification	3.0
HORT 1214	Fruits: Culture and Identification	3.0
HORT 2130	Horticultural Accounting	3.0
HORT 2520	Nursery and Garden Center Operations *(Winter only)*	3.0
HORT 2521	Managing the Landscape *(Winter only)*	3.0
HORT 2522	Landscapes: Ecology and Sustainability *(Spring only)*	3.0
HORT 2523	Landscapes: Environmental *(Fall only)*	3.0
HORT 2560	Computer Landscaping Design	3.0

The degree option is a specialization within a program. Although students may complete multiple options within this program, only the major degree is awarded.

Horticulture (HORC1)

Award: Certificate of Achievement
Program location: Fort Omaha Campus

The Horticulture Certificate prepares students for work in a nursery or landscaping business by providing instruction that focuses on production, handling, sale, and use of greenhouse crops, flower crops, bedding crops, foliage plants, woody ornamentals, propagation, planting, cultural practices, harvesting, packaging, shipping, and maintenance.

GRADUATION REQUIREMENTS	
General Education	13.5
Major Requirements	36.0
Total Credit Hours Required	**49.5**

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

Communications	Credit Hrs.	Quantitative/Numeracy Skills	Credit Hrs.
English Level I (see page 38)	4.5	Mathematics (see page 38)	4.5
Natural Sciences	**Credit Hrs.**		
BIOS 1410 Biology of Lower Plants	4.5		

Major Requirements for Horticulture .....36.0 Credit Hrs.

Courses		Credit Hrs.
HORT 1100	Introduction to Horticulture	6.0
HORT 1110	Perennials: Culture and Identification *(Fall only)*	3.0
HORT 1112	Annuals: Culture and Identification	3.0
HORT 1113	Turfgrass Management	3.0
HORT 1140	Food Cultivation III	3.0
HORT 2120	Plant Propagation by Seed *(Fall only)*	3.0
HORT 2121	Vegetative Plant Propagation *(Winter only)*	3.0
HORT 2216	Horticulture Diseases *(Fall only)*	4.5
HORT 2217	Horticulture Insects *(Spring only)*	4.5
HORT 2981	Internship	3.0

Horticulture – Specialist Diplomas

Award: Specialist Diploma
Program location: Fort Omaha Campus

Arboriculture (HOASD)

Students obtaining the Arboriculture Specialist Diploma will be prepared to work in the nursery management field.

Requirements for Arboriculture Diploma.....27.0 Credit Hrs.

Courses		Credit Hrs.
HORT 1100	Introduction to Horticulture	6.0
HORT 1210	Trees: Culture and Identification *(Fall only)*	3.0
HORT 1211	Evergreens and Groundcovers: Culture and Identification *(Winter only)*	3.0
HORT 1212	Shrubs: Culture and Identification *(Spring only)*	3.0
HORT 2216	Horticulture Diseases *(Fall only)*	4.5
HORT 2217	Horticulture Insects *(Spring only)*	4.5
HORT 1214	Fruits: Culture and Identification	3.0

Floriculture (HOFSD)

Students obtaining the Floriculture Specialist Diploma will have a basic knowledge of floral design. Students will be proficient in designing fresh, dried, or silk arrangements and specialty floral design topics.

Requirements for Floriculture Diploma.....25.0 Credit Hrs.

Courses		Credit Hrs.
HORT 1100	Introduction to Horticulture	6.0
HORT 1215	Interiorscaping and Houseplants *(Fall only)*	4.0
HORT 1300	Floral Design I	3.0
HORT 1310	Floral Design II *(Winter only)*	3.0
HORT 1320	Floral Design III *(Spring only)*	3.0
HORT 1650	Therapeutic Horticulture	3.0
HORT 2540	Flowershop Operations *(Fall only)*	3.0

Landscape and Grounds Management (HLGSD)

The Landscape and Grounds Management Specialist Diploma focuses on property management, studying both the landscape and the grounds areas. Students will study turf grass, fertilizers, soils, water, ecosystems, design concepts, design history, pruning, pests, and water gardening.

Requirements for Landscape and Grounds Management Diploma .....24.0 Credit Hrs.

Courses		Credit Hrs.
HORT 1100	Introduction to Horticulture	6.0
HORT 1210	Trees: Culture and Identification *(Fall only)*	3.0
HORT 1211	Evergreens and Groundcovers: Culture and Identification *(Winter only)*	3.0
HORT 1212	Shrubs: Culture and Identification *(Spring only)*	3.0
HORT 2521	Managing the Landscape *(Winter only)*	3.0
HORT 2522	Landscapes: Ecology and Sustainability *(Spring only)*	3.0
HORT 2523	Landscapes: Environmental *(Fall only)*	3.0

Landscaping (HOLSD)

The Landscaping Specialist Diploma focuses on the identification and use of woody ornamentals and herbaceous plant material. Landscape designs, installation, and maintenance are the main operations and practices covered.

Requirements for Landscaping Diploma .....27.0 Credit Hrs.

Courses		Credit Hrs.
HORT 1100	Introduction to Horticulture	6.0
HORT 1110	Perennials: Culture and Identification *(Fall only)*	3.0
HORT 1210	Trees: Culture and Identification *(Fall only)*	3.0
HORT 1211	Evergreens and Groundcovers: Culture and Identification *(Winter only)*	3.0
HORT 1212	Shrubs: Culture and Identification *(Spring only)*	3.0
HORT 2420	Landscape Construction *(Spring only)*	3.0
HORT 2430	Residential Landscaping *(Fall only)*	3.0
HORT 2440	Advanced Landscaping *(Winter only)*	3.0

Nursery Management (HNMSD)

Students obtaining the Nursery Management Specialist Diploma will be prepared to work in the nursery management field.

Requirements for Nursery Management Diploma .....28.5 Credit Hrs.

Courses		Credit Hrs.
HORT 1100	Introduction to Horticulture	6.0
HORT 1210	Trees: Culture and Identification *(Fall only)*	3.0
HORT 1211	Evergreens and Groundcovers: Culture and Identification *(Winter only)*	3.0
HORT 1212	Shrubs: Culture and Identification *(Spring only)*	3.0
HORT 1214	Fruits: Culture and Identification	3.0
HORT 2130	Horticulture Business Operations	4.5
HORT 2420	Landscape Construction *(Spring only)*	3.0
HORT 2520	Nursery and Garden Center Operations *(Winter only)*	3.0

Organic Gardening (HOGSD)

Students obtaining the Organic Gardening Specialist Diploma will learn the principles of organic and sustainable gardening.

Requirements for Organic Gardening Diploma .....27.0 Credit Hrs.

Courses		Credit Hrs.
HORT 1100	Introduction to Horticulture	6.0
HORT 1111	Food Cultivation	3.0
HORT 1112	Vegetable and Herb Gardening	3.0
HORT 1214	Fruits: Culture and Identification	3.0
HORT 1410	Food Cultivation	3.0
HORT 2216	Horticulture Diseases *(Fall only)*	4.5
HORT 2217	Horticulture Insects *(Spring only)*	4.5

Plant Production and Propagation (HOPSD)

Student obtaining the Plant Production and Propagation Specialist Diploma will study plant production.

Requirements for
Plant Production and Propagation Diploma .....27.0 Credit Hrs.

Courses		Credit Hrs.
HORT 1100	Introduction to Horticulture	6.0
HORT 1112	Annuals: Culture and Identification	3.0
HORT 2120	Plant Propagation by Seed *(Fall only)*	3.0
HORT 2121	Vegetative Plant Propagation *(Winter only)*	3.0
HORT 2530	Greenhouse Crop Production	3.0
HORT 2216	Horticulture Diseases *(Fall only)*	4.5
HORT 2217	Horticulture Insects *(Spring only)*	4.5

Professional Landscape Design (HODSD)

Students obtaining the Professional Landscape Design Specialist Diploma will study landscape and design.

Requirements for
Professional Landscape Design Diploma .....27.0 Credit Hrs.

Courses		Credit Hrs.
HORT 1100	Introduction to Horticulture	6.0
HORT 1210	Trees: Culture and Identification *(Fall only)*	3.0
HORT 1211	Evergreens and Groundcovers: Culture and Identification *(Winter only)*	3.0
HORT 1212	Shrubs: Culture and Identification *(Spring only)*	3.0
HORT 2420	Landscape Construction *(Spring only)*	3.0
HORT 2430	Residential Landscaping *(Fall only)*	3.0
HORT 2440	Advanced Landscaping *(Winter only)*	3.0
HORT 2450	Computer Landscaping Design *(Winter only)*	3.0

HEALTH

DEGREES IN THIS SECTION:

- Dental Assisting
- Nursing – Associate Degree
- Nursing – Licensed Practical Nurse
- Professional Health Studies
  - Emergency Medical Technician – Paramedic
- Respiratory Care Technology

OTHER RELATED DEGREES:

- Liberal Arts/Academic Transfer - Associate in Science (see *Transfer Programs*)
- Medical Office Professional (see *Business/Office*)

Dental Assisting (DEACE)★

Award: Certificate of Achievement
Program location: South Omaha Campus

Students in the Dental Assisting program learn basic knowledge of all facets of dental assisting and develop a strong background in the care and restoration of the oral cavity and a working knowledge of all chairside and laboratory equipment and its care.

GRADUATION REQUIREMENTS	
General Education	13.5
Major Requirements	68.0
Total Credit Hours Required	**81.5**

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

Communications	Credit Hrs.	Social Sciences	Credit Hrs.
ENGL 1210 Applied Communications	4.5	PSYC 1000 Psychology for Everyday Living **OR** PSYC 1010 Introduction to Psychology	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
Any 1000-level of Mathematics **OR** MATH 1240 Business Mathematics **OR** MATH 1310 Intermediate Algebra* **MATH 1310 or higher should be taken by students seeking the Professional Studies Option or by students who want a transfer math course.*	4.5		

Major Requirements for Dental Assisting. .....68.0 Credit Hrs.

Courses		Credit Hrs.
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
HLTH 1000	Cardiopulmonary Resuscitation	1.0

★ This program has special admission requirements. Contact Student Services for more information and to obtain a current admission information packet.

The Dental Assisting curriculum is accredited by the Commission on Dental Accreditation for the American Dental Association.

Continued...

Below is a suggested guide for students planning a career in dental assisting after one year of full-time study.

FIRST YEAR							
First Quarter (Fall)		**Second Quarter (Winter)**		**Third Quarter (Spring)**		**Fourth Quarter (Summer)**	
DENT 1000	2.0	DENT 1180	3.0	DENT 1160	2.0	DENT 1020	3.0
DENT 1100	4.0	DENT 1200	5.5	DENT 1240	2.0	DENT 1992	8.0
DENT 1120	2.5	DENT 1230	4.0	DENT 1280	2.5	DENT 1993	2.0
DENT 1140	2.5	DENT 1310	2.5	DENT 1320	4.0	Social Sciences	4.5
DENT 1260	3.0	DENT 1360	4.0	DENT 1370	4.0		17.5
DENT 1350	4.0		19.0	DENT 1991	2.5		
ENGL 1210	4.5			Mathematics	4.5		
HLTH 1000	1.0				21.5		
	23.5						

HEALTH

Nursing – Associate Degree★ (ASNAS)

Award: Associate in Science in Nursing
Program location: Fort Omaha Campus

All students accepted into the second year must have acquired LPN licensure by the start date.

The associate degree nurse has both dependent and independent functions within a variety of healthcare environments throughout the community. This member of the healthcare team is able to select from a variety of therapeutic nursing interventions to provide care for clients. 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 National League for Nursing Accrediting Commission, 61 Broadway, 33rd Floor, New York, NY 10006, phone (800) 669-1656.

GRADUATION REQUIREMENTS	
General Education	51.0
1st year (LPN) Major Requirements	35.0
2nd year (RN) Major Requirements	22.0
Total Credit Hours Required	**108.0**

General Education Requirements.....51.0* Credit Hrs.

Communications	Credit Hrs.	Social Sciences	Credit Hrs.
ENGL 1010 English Composition I	4.5	PSYC 1120 Human Growth and Development	4.5
ENGL 1020 English Composition II	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Natural Sciences**	**Credit Hrs.**
MATH 1310 Intermediate Algebra	4.5	BIOS 2150 Microbiology◇	6.0
		BIOS 2310 Human Anatomy and Physiology I◇	6.0
		BIOS 2320 Human Anatomy and Physiology II	6.0
		CHEM 1010 College Chemistry	6.0
Other	**Credit Hrs.**		
HMRL 1010 Human Relations Skills	4.5		
INFO 1001 Microcomputer Fundamentals	4.5		

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

Major Requirements for Nursing – Associate Degree (35.0 are earned during first year LPN) .....57.0 Credit Hrs.

Courses		Credit Hrs.
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

★MCC's Nursing programs have special requirements. Contact Student Services for more information and to obtain a current healthcare admission information packet.

A suggested guide for students planning employment while enrolled full-time in the Associate Degree Nursing Program is at the end of the Nursing section.

Nursing – Practical (LPNCE)★

Award: Certificate of Achievement
Program location: Fort Omaha Campus

The licensed practical nurse (LPN) participates with other healthcare team members in the planning, implementation, and evaluation of nursing care in a variety of settings. The practical nurse functions under the supervision of a registered nurse or licensed practitioner. 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	31.5
Major Requirements	35.0
Total Credit Hours Required	**66.5**

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

Communications	Credit Hrs.	Quantitative/Numeracy Skills	Credit Hrs.
ENGL 1010 English Composition I	4.5	MATH 1310 Intermediate Algebra	4.5
Social Sciences	**Credit Hrs.**	**Natural Sciences**	**Credit Hrs.**
PSYC 1120 Human Growth and Development	4.5	CHEM 1010 College Chemistry	6.0
		BIOS 2310 Human Anatomy and Physiology I ◇	6.0
		BIOS 2320 Human Anatomy and Physiology II	6.0

◇Additional prerequisites may be required.

Major Requirements for Nursing – Practical.....35.0 Credit Hrs.

Courses		Credit Hrs.
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

★*MCC's Nursing programs have special requirements. Contact Student Services for more information and to obtain a current healthcare admission information packet.*

A suggested guide for students planning employment while enrolled full-time in the Practical Nursing program is at the end of the Nursing section.

HEALTH

First Year – Practical Nursing Program

NOTE: Applicants accepted to MCC's Practical Nursing program must complete Cardiopulmonary Resuscitation (HLTH 1000 – CPR) prior to orientation.

Prerequisites (must be completed prior to the application deadline)

CHEM	1010	6.0
ENGL	1010	4.5
MATH	1310	4.5
PSYC	1120	4.5
		19.5

FIRST YEAR

First Quarter		Second Quarter		Third Quarter	
BIOS 2310	6.0	BIOS 2320	6.0	NURS 1130	8.5
NURS 1110	6.0	NURS 1120	8.0	NURS 1400	3.0
NURS 1200	1.0	NURS 1950	4.0		11.5
NURS 1300	1.0		18.0		
NURS 1510	3.5				
	17.5				

Second Year – Associate Degree Nursing Program

NOTE: Must be in good standing in MCC's Practical Nursing program and scheduled to graduate on time or be a graduate from a practical nursing program.

Prerequisites (must be completed prior to the start of the Associate Degree Nursing Program)

BIOS	2150	6.0
INFO	1001	4.5
		10.5

SECOND YEAR

Fifth Quarter		Sixth Quarter		Seventh Quarter	
ENGL 1020	4.5	NURS 2140	5.0	HMRL 1010 **OR**	
NURS 2410	5.0	NURS 2310	5.0	HMRL 101A–C	4.5
NURS 2520	1.0		10.0	NURS 2150	5.0
	10.5			NURS 2210	1.0
					10.5

Professional Health Studies (PHSAS)

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

Numerous and diverse opportunities exist in the area of health careers. This degree provides students with the flexibility to create health career tracks and options based on their personal and professional goals. The degree focuses on career areas as well as general education and presents students with an associate degree, which allows some latitude in selection of courses in the various health areas. Students should work with an advisor or counselor in planning the completion of this degree.

GRADUATION REQUIREMENTS	
General Education	33.0
Major Requirements	36.0–84.5
Option Requirements	27.0
Total Credit Hours Required	**96.0**

General Education Requirements ..... 33.0 Credit Hrs.

Communications		Credit Hrs.
ENGL 1010	English Composition I	4.5
ENGL 1020	English Composition II	4.5
Quantitative/Numeracy Skills		**Credit Hrs.**
MATH 1310	Intermediate Algebra	4.5
Other		**Credit Hrs.**
HMRL 1010	Human Relations Skills	4.5
INFO 1001	Information Systems and Literacy	4.5

Social Sciences/Natural Science	Credit Hrs.
Natural Science (see page 38)	6.0
Social Sciences (see page 38)	4.5

Major Requirements for a Professional Health Studies ..... 36.0 Credit Hrs.

Courses		Credit Hrs.
Complete a minimum of 36.0 credit hours of courses selecting from a maximum of two prefixes related to health fields. The following example demonstrates a possible combination.		
HIMS 1110	Introduction to Health Management	4.5
HIMS 1120	Medical Terminology I	4.5
HIMS 1130	Medical Terminology II	4.5
HIMS 1150	Introduction to Medical Law and Ethics	4.5
HIMS 1180	Disease Processes	4.5
HLTH 1000	Cardiopulmonary Resuscitation	1.0
HLTH 1010	Heart Saver First Aid/AED	1.0
HLTH 1200	Long-Term Care/CNA	6.5
HLTH 1300	Medication Aide/Tech	5.0

Requirements for Professional Health Studies Tracks ..... 27.0–66.5 Credit Hrs.

The Professional Health Studies tracks are available in the areas listed below. See the following pages for specific additional courses required to satisfy each option.

General Health Studies	Emergency Medical Technician – Paramedic	Dental Assisting
27.0 credit hrs.	84.5 credit hrs.	81.0 credit hrs.

HEALTH

Professional Health Studies – General Health Studies (PHSGO)

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

GRADUATION REQUIREMENTS	
General Education	33.0
Major Requirements	36.0
Option Requirements	27.0
Total Credit Hours Required	**96.0**

General Education Requirements..... listed on page 179

Major Requirements for Professional Health Studies..... listed on page 179

Requirements for General Health Option.....27.0 Credit Hrs.

Courses
Choose 27.0 credit hours from any health-related prefix.

Professional Health Studies – Emergency Medical Technician – Paramedic (PHSPO)

Award: Professional Health Studies Associate in Applied Science Degree
Program location: Fort Omaha Campus, South Omaha Campus

GRADUATION REQUIREMENTS	
General Education	33.0
Major Requirements	87.5
Total Credit Hours Required	**120.5**

General Education Requirements..... listed on page 181

Major Requirements for Emergency Medical Technician – Paramedic .....84.5 Credit Hrs.

Courses
Students who successfully complete the Emergency Medical Technician – Paramedic Certificate can earn the Professional Health Studies Associate Degree by fulfilling the additional 19.5 general education requirements in addition to the 84.5 hours of program requirements already earned.

Professional Health Studies – Dental Assisting (PHSDO)

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

GRADUATION REQUIREMENTS	
General Education	33.0
Major Requirements	81.5
Total Credit Hours Required	**114.5**

General Education Requirements..... listed on page 179

Major Requirements for Dental Assisting Track.....81.5 Credit Hrs.

Courses
Students who successfully complete the Dental Assisting program can earn the Professional Health Studies Associate Degree by fulfilling the additional 19.5 general education requirements in addition to the 81.5 hours of program requirements already completed.

HEALTH

Professional Health Studies – Emergency Medical Technician – Paramedic (PHSPC)

Award: Certificate of Achievement
Program Location: Fort Omaha Campus, South Omaha Campus

GRADUATION REQUIREMENTS	
General Education	13.5
Major Requirements	87.5
Total Credit Hours Required	**101.0**

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

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
ENGL 1010 English Composition I	4.5	Humanities/Social Sciences (see page 38)	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
MATH 1310 Intermediate Algebra	4.5		

Major Requirements for Emergency Medical Technician – Paramedic .....87.5 Credit Hrs.

Courses		Credit Hrs.
HLTH 1000	Cardiopulmonary Resuscitation	1.0
HLTH 1100	Emergency Medical Technician	12.5
HLTH 1120	Paramedic Part 1 of 4	12.0
HLTH 1122	Paramedic Part 2 of 4	12.0
HLTH 1123	Paramedic Field Part 1 of 3	6.5
HLTH 1124	Paramedic Part 3 of 4	12.0
HLTH 1125	Paramedic Field Part 2 of 3	6.5
HLTH 1126	Paramedic Part 4 of 4	12.0
HLTH 1127	Paramedic Field Part 3 of 3	7.0
HLTH 1130	Emergency Medical Services Instructor	6.0

Respiratory Care Technology (RTAAS)★

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

Respiratory therapists provide diagnostic testing, treatment, and preventive care to patients with cardiopulmonary disorders under the direct or indirect supervision of a physician utilizing sophisticated biomedical equipment. Upon completion of this program, students are eligible to take the registry examination in respiratory care administered by the National Board for Respiratory Care.

This program is accredited by the Commission on Accreditation for Respiratory Care, 1248 Harwood Rd., Bedford, TX 76021.

GRADUATION REQUIREMENTS

General Education	33.0
Major Requirements	76.5
Other Requirements	21.5–22.5
Total Credit Hours Required	**131.0–132.0**

General Education Requirements.....33.0* Credit Hrs.

Communications	Credit Hrs.	Social Sciences	Credit Hrs.
ENGL 1010 English Composition I	4.5	PSYC 1010 Introduction to Psychology	4.5
ENGL 1020 English Composition II	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Natural Sciences**	**Credit Hrs.**
MATH 1310 Intermediate Algebra	4.5	BIOS 2150 Microbiology ◇	6.0
Other	**Credit Hrs.**		
HMRL 1010 Human Relations Skills	4.5		
INFO 1001 Information Systems and Literacy	4.5		

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

Major Requirements for Respiratory Care Technology.....76.5 Credit Hrs.

Courses		Credit Hrs.
RESP 1000	Orientation to Respiratory Care	3.0
RESP 1010	Introduction to Respiratory Care Procedures	4.5
RESP 1020	Cardiopulmonary Anatomy and Physiology	4.5
RESP 1030	Respiratory Care Procedures I	4.5
RESP 1031	Current Concepts I	2.0
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

★ 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/health careers.

HEALTH

Continued...

Other Requirements for Respiratory Care Technology.....21.5–22.5

Courses		Credit Hrs.
BIOS 1010	Introduction to Biology **OR**	
BIOS 2310	Human Anatomy and Physiology I	6.0
BIOS 1310	Survey of Human Anatomy and Physiology **OR**	5.0
BIOS 2320	Human Anatomy and Physiology II	6.0
CHEM 1010	College Chemistry	6.0
PHYS 1010	Applied Physics	4.5

Below is a suggested guide for students planning a career as a respiratory therapist after two years of full-time study.

FIRST YEAR							
First Quarter (Summer)		**Second Quarter (Fall)**		**Third Quarter (Winter)**		**Fourth Quarter (Spring)**	
BIOS 1010 **OR**		BIOS 1310 **OR**	5.0	INFO 1001	4.5	BIOS 2150	6.0
BIOS 2310	6.0	BIOS 2320	6.0	PSYC 1010	4.5	RESP 1030	4.5
CHEM 1010	6.0	ENGL 1010	4.5	RESP 1010	4.5	RESP 1031	2.0
MATH 1310	4.5	PHYS 1010	4.5	RESP 1020	4.5	RESP 1991	5.5
	16.5	RESP 1000	3.0		18.0		18.0
			17.0–18.0				
SECOND YEAR							
Fifth Quarter (Summer)		**Sixth Quarter (Fall)**		**Seventh Quarter (Winter)**		**Eighth Quarter (Spring)**	
RESP 1040	4.5	HMRL 1010	4.5	RESP 2120	3.0	ENGL 1020	4.5
RESP 1041	2.0	RESP 1993	5.5	RESP 2121	2.0	RESP 2131	2.0
RESP 1042	3.0	RESP 2100	4.5	RESP 2122	3.0	RESP 2132	4.5
RESP 1992	5.5	RESP 2101	2.0	RESP 2994	5.5	RESP 2995	5.5
	15.0		16.5		13.5		16.5

INDUSTRIAL/ TECHNICAL

DEGREES IN THIS SECTION:

- Air Conditioning, Refrigeration, and Heating Technology
- Architectural Design Technology
- Auto Collision Technology
- Automotive Technology
- Civil Engineering Technology
- Construction Technology
- Diesel Service Technology
  - CDL Truck Driving
- Electrical Apprenticeship
- Electrical Technology
- Industrial and Commercial Trades
- Mechanical Design Technology
- Plumbing Apprenticeship
- Process Operations Technology/Power Plant Operations
- Sustainable Energy Technology
- Utility Line Technician
- Welding Technology

OTHER RELATED DEGREES:

- Electronics Technology (see *Computing/Electronics*)

Air Conditioning, Refrigeration, and Heating Technology (AHAAS)

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

The Air Conditioning, Refrigeration, and Heating Technology program provides students with a diversified background in air conditioning, refrigeration, and heating systems. The program combines classwork with hands-on activities to facilitate learning and understanding of these fields. Potential employment opportunities exist in local air conditioning, refrigeration, and heating companies, both large and small.

GRADUATION REQUIREMENTS	
General Education	27.0
Major Requirements	70.0
Total Credit Hours Required	**97.0**

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

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	Humanities/Social Sciences (see page 38)	4.5
English Level II (see page 38)	4.5	*PSYC 1000 is recommended.*	
ENGL 1220 and ENGL 1240 are recommended.			
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
Mathematics (see page 38)	4.5	HMRL 1010 Human Relations Skills	4.5
MATH 1240 is recommended.		INFO 1001 Information Systems and Literacy	4.5

Major Requirements for Air Conditioning, Refrigeration, and Heating Technology.....70.0 Credit Hrs.

Courses		Credit Hrs.
ACCT 1050	Bookkeeping	3.0
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

Choose 4.0 credits of electives.

Air Conditioning, Refrigeration, and Heating Technology (AHRCE)

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus

The Air Conditioning, Refrigeration, and Heating Technology Certificate provides students with practical experience in servicing and installing air conditioning, refrigeration, and heating equipment. Related instruction is provided to enable students to understand the basic principles involved in construction and operation of the equipment. Upon completion of the program, potential employment opportunities exist with companies that specialize in air conditioning, refrigeration, and heating service and installation.

GRADUATION REQUIREMENTS	
General Education	13.5
Major Requirements	36.0
Total Credit Hours Required	**49.5**

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

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	Humanities/Social Sciences (see page 38)	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
Mathematics (see page 38)	4.5		

Major Requirements for Air Conditioning, Refrigeration, and Heating Technology.....36.0 Credit Hrs.

Courses		Credit Hrs.
HVAC 1000	Refrigeration Electrical Theory and Application	6.0
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, Refrigeration, and Heating Technology – Specialist Diplomas

Award: Specialist Diploma
Program location: Elkhorn Valley Campus

Air Conditioning (AACSD)

Students that complete the Air Conditioning Specialist Diploma will be able to troubleshoot, repair, and service various types of air conditioning systems. Electrical theory, blueprint reading, and heat loss/heat gain are covered in this diploma.

Requirements for Air Conditioning Diploma.....27.0 Credit Hrs.

Courses		Credit Hrs.
HVAC 1000	Refrigeration Electrical Theory and Application	6.0
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)

Students that complete the Heat Pump Specialist Diploma will be able to troubleshoot, service, and repair systems. Students will also have working knowledge of electric heat and gas heat used as back-up heat for the heat pump.

Requirements for Heat Pump Diploma.....24.0 Credit Hrs.

Courses		Credit Hrs.
HVAC 1000	Refrigeration Electrical Theory and Application	6.0
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)

Students that complete the Heat Systems Specialist Diploma will have electrical knowledge for gas heating, oil burner heating, electric heat, practice insulation, and service of various systems. Students will also study computer-controlled environments and write computer programs for changing temperature in various locations.

Requirements for Heat Systems Diploma.....24.0 Credit Hrs.

Courses		Credit Hrs.
HVAC 1000	Refrigeration Electrical Theory and Application	6.0
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

Refrigeration (ARFSD)

Students that complete the Refrigeration Specialist Diploma will have electrical knowledge, refrigeration service principles, and shop practice including soldering, brazing, flaring, and leak checking procedure. Students will gain knowledge by installing and servicing refrigeration systems for residential and commercial units.

Requirements for Refrigeration Diploma .....24.0 Credit Hrs.

Courses		Credit Hrs.
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

Architectural Design Technology (ADAS1)

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

The Architectural Design Technology program builds a strong foundation by blending classical drafting techniques with state-of-the-art computer-aided design. 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	66.5
Total Credit Hours Required	**98.0**

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

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	Humanities/Social Sciences (see page 38)	4.5
English Level II (see page 38)	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1310 Intermediate Algebra	4.5	HMRL 1010 Human Relations Skills	4.5
MATH 1430 Trigonometry	4.5	INFO 1001 Information Systems and Literacy	4.5

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

Major Requirements for Architectural Design Technology .....66.5 Credit Hrs.

Courses		Credit Hrs.
ARCH 1000	Appreciation of Architecture	4.5
ARCH 1100	Beginning AutoCAD	4.5
ARCH 1110	Intermediate AutoCAD	4.5
ARCH 1120	Beginning REVIT (Building)	4.5
ARCH 1130	Intermediate REVIT (Building)	4.5
ARCH 1200	Woodframe Architecture	8.0
ARCH 2410	Commercial Architecture	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	8.0
ARCH 2981	Internship	4.0

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

FIRST YEAR						
First Quarter		**Second Quarter**		**Third Quarter**		
ARCH 1000	4.5	ARCH 1200	8.0	ARCH 1120	4.5	
ARCH 1100	4.5	INFO 1001	4.5	ARCH 1130	4.5	
ARCH 1110	4.5	MATH 1430	4.5	ARCH 2410	8.0	
MATH 1310	4.5		17.0		17.0	
	18.0					
SECOND YEAR						
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**		
ARCH 2420	8.5	ARCH 2520	4.0	ARCH 2981	4.0	
English Level I	4.5	ARCH 2530	4.0	English Level II	4.5	
HMRL 1010	4.5	ARCH 2600	8.0	Humanities/Social Science elective	4.5	
	17.0		16.0		13.0	

Architectural Design Technology – Specialist Diploma

Award: Specialist Diploma
Program location: Elkhorn Valley Campus

Architectural Imaging (AAISD)

Students receiving the Architectural Imaging Specialist Diploma will have achieved an intermediate skill level with the graphic software currently used in the offices of architects and engineers.

Requirements for Architectural Imaging Diploma.....26.0 Credit Hrs.

Courses		Credit Hrs.
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 (ABAS1)

Award: Associate in Applied Science Degree
Program location: Applied Technology Center

The Auto Collision Technology program covers the entire scope of the field, including basic and advanced metal finishing repair, frame repair and alignment, panel replacement, major body repair, and all aspects of automotive painting using the latest technology.

GRADUATION REQUIREMENTS

General Education	27.0
Major Requirements	70.5–78.5
Total Credit Hours Required	**97.5–105.5**

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

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	Humanities/Social Sciences (see page 38)	4.5
English Level II (see page 38)	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
Mathematics (see page 38) *MATH 1240 recommended.*	4.5	HMRL 1010 Human Relations Skills INFO 1001 Information Systems and Literacy	4.5 4.5

Major Requirements for Auto Collision Technology .....70.5–78.5 Credit Hrs.

Courses		Credit Hrs.	
AUTB 1000	Automotive Welding I	3.0	*For entry into the Auto Collision program, a written mechanical reasoning test is required.*
AUTB 1010	Automotive Welding II	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	*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.*
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 **OR**		
AUTB 2981	Internship	6.0–10.0	
AUTB 2241	Nonstructural Repair VI **OR**		
AUTB 2981	Internship	6.0–10.0	*A basic tool set is required by the beginning of the second quarter classes.*
AUTB 2300	Automotive Refinishing I	3.0	
AUTB 2310	Automotive Refinishing II	6.0	
AUTB 2450	Collision Estimating	3.0	
AUTB 2550	Electrical and Mechanical Systems	3.0	
RDLS 1200	College Success Strategies **OR**		
Elective		4.5	

ACCELERATED LOCKSTEP PROGRAM OPTION

First Quarter (Fall)		Second Quarter (Winter)		Third Quarter (Spring)		Fourth Quarter (Summer)	
AUTB 1000	3.0	AUTB 1210	6.0	AUTB 1220	6.0	AUTB 2981 **OR**	
AUTB 1010	3.0	AUTB 2120	3.0	AUTB 2230	6.0	AUTB 2240*	6.0–10.0
AUTB 1100	3.0	AUTB 2300	3.0	AUTB 2310	6.0	AUTB 2981 **OR**	
AUTB 1110	3.0	AUTB 2450	3.0	HMRL 1010	4.5	AUTB 2241*	6.0–10.0
AUTB 1200	6.0	AUTB 2550	3.0	MATH 1240	4.5		12.0–20.0
ENGL 1230	4.5	ENGL 1240	4.5		27.0		
INFO 1001	4.5	Humanities/Social					
RDLS 1200/elective	4.5	Science elective	4.5				
	31.5		27.0				

*Students must complete all other degree requirements before signing up for the 12.0 credit hour internship. AUTB 2240 or AUTB 2241 may be substituted for the internship if offered during the summer hours. Both internship credit hours must be completed.

Auto Collision Technology (ABTC1)

Award: Certificate of Achievement
Program location: Applied Technology Center

The Auto Collision Technology Certificate covers basic sheet metal and frame repair.

GRADUATION REQUIREMENTS	
General Education	13.5
Major Requirements	39.0
Total Credit Hours Required	**52.5**

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

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	Humanities/Social Sciences (see page 38)	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
Mathematics (see page 38)	4.5		

Major Requirements for Auto Collision Technology ..39.0 Credit Hrs.

Courses		Credit Hrs.
AUTB 1000	Automotive Welding I	3.0
AUTB 1010	Automotive Welding II	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
Choose 6.0 credit hours of electives.		

Auto Collision Technology – Specialist Diploma

Award: Specialist Diploma
Program location: Applied Technology Center

Auto Collision Estimating (ACESD)

Upon completion of the Auto Collision Estimating Specialist Diploma, students will be qualified for a training/intern position as an adjustor for an insurance company or an estimator for a collision repair shop.

Requirements for
Auto Collision Estimating Diploma.....24.0 Credit Hrs.

Courses		Credit Hrs.
AUTB 1100	Structural Repair I	3.0
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	3.0
AUTB 2550	Electrical and Mechanical Systems	3.0

Automotive Technology (AUAAS)

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

The Automotive Technology START (Student Training in Automotive Repair Technology) program includes an associate degree program and specialist diplomas designed to meet the technical needs of an industry that has been revolutionized by electronics and computerization. The associate degree program provides a sound background in the major automotive repair areas.

GRADUATION REQUIREMENTS	
General Education	27.0
Major Requirements	83.0
Total Credit Hours Required	**110.0**

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

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	Humanities/Social Sciences (see page 38)	4.5
English Level II (see page 38)	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1240 Applied Mathematics	4.5	HMRL 1010 Human Relations Skills	4.5
		INFO 1001 Information Systems and Literacy	4.5

Major Requirements for Automotive Technology.....83.0 Credit Hrs

Courses		Credit Hrs.
AUTT 1010	Introduction to Auto Service and Minor Repair	6.0
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	Mechanical Services	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 Drive Trains	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

Students must complete 24.0 credit hours in automotive courses before they may register for AUTT 2981 On-the-Job Training/Work Experience.

Entrance into the AUTT program is determined by an application process. Contact an academic advisor or faculty member to acquire an application packet.

Automotive Advising Tips

- Students who wish to enter the Automotive Technology program must complete a hands-on (Nuts/Bolts) test. Entrance into the Automotive Technology program is limited to the Fall quarter only.
- A basic tool set is required by the beginning of the second quarter of classes. Students who do not obtain their tools may be disenrolled.
- This program utilizes a hybrid format. Approximately 15 percent of the instruction is online.
- Additional program requirements are detailed in the Student Handbook at www.mccneb.edu/programs/autt.asp.
- Students who do not wish to earn an associate degree but who wish to take one or two automotive classes may do so with the approval of the instructor.

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

Automotive Technology – Basic Automotive Service (AUTC1)

Award: Certificate of Achievement
Program location: South Omaha Campus

The Basic Automotive Service Certificate provides 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 fundamentals of automotive systems are presented and emphasis is placed on diagnosing problems related to these systems.

GRADUATION REQUIREMENTS	
General Education	13.5
Major Requirements	36.0
Total Credit Hours Required	**49.5**

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

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	Humanities/Social Sciences (see page 38)	4.5
Quantitative	**Credit Hrs.**		
MATH 1240 Applied Mathematics	4.5		

Major Requirements for Automotive Technology – Basic Automotive Service .....36.0 Credit Hrs.

Courses		Credit Hrs.
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	Mechanical Services	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 Technology – Specialist Diplomas

Award: Specialist Diploma
Program location: South Omaha Campus

Automotive Electronics (AAESD)

Students that complete the Automotive Electronics Specialist Diploma will be able to read a wiring diagram, master the use of a multimeter, troubleshoot electrical problems, and recognize the common symptoms associated with electrical repair.

Requirements for Automotive Electronics Diploma...24.0 Credit Hrs.

Courses		Credit Hrs.
AUTT 1010	Introduction to Auto Service and Minor Repair	6.0
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 Transmissions and Transaxles (ATTSD)

Students that complete the Automotive Transmissions and Transaxles Specialist Diploma will be able to remove and install a manual and an automatic transmission, replace a clutch, take oil pressure readings, make internal measurements and adjustments, and diagnose common problems associated with drive train repair.

Requirements for Automotive Transmissions and Transaxles Diploma .....30.0 Credit Hrs.

Courses		Credit Hrs.
AUTT 1010	Introduction to Auto Service and Minor Repair	6.0
AUTT 1210	Automotive Electricity and Electronics I	6.0
AUTT 2810	Manual Transmissions and Drive Trains	6.0
AUTT 2820	Automatic Transmissions	6.0
AUTT 2830	Automatic Transaxles	6.0

Automotive Brakes and Suspension (ABSSD)

Students that complete the Automotive Brakes and Suspension Specialist Diploma will be able to replace a set of pads and shoes, bleed the hydraulic system, understand the theory associated with ABS and vacuum boosters, operate a lathe, perform a realignment, operate an alignment machine, adjust alignment angles, and diagnose problems associated with brakes and suspension repair.

Requirements for Automotive Brakes and Suspension Diploma.....24.0 Credit Hrs.

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

Civil Engineering Technology (CEAA1)

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

The Civil Engineering Technology program emphasizes the skills necessary for graduates seeking employment in civil engineering occupations. Emphasis is placed on the related use of computers and software. The degree provides a strong foundation in current basic civil engineering techniques and prepares 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	58.0
Option Requirements	17.0– 19.5
Total Credit Hours Required	**102.0–104.5**

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

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	Humanities/Social Sciences (see page 38)	4.5
English Level II (see page 38)	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1310 Intermediate Algebra	4.5	HMRL 1010 Human Relations Skills	4.5
		INFO 1001 Information Systems and Literacy	4.5

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

Major Requirements for Civil Engineering Technology .....58.0 Credit Hrs.

Courses		Credit Hrs.
CHEM 1010	College Chemistry	6.0
MATH 1430	Trigonometry	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 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

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

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	Surveying Technology
17.0 credit hrs.	19.5 credit hrs.

Civil Engineering Technology – Building Construction Technology (CEBCO)

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

The Building Construction Technology curriculum 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	58.0
Option Requirements	17.0
Total Credit Hours Required	**102.0**

General Education Requirements ..... listed on page 198

Major Requirements for Civil Engineering Technology ..... listed on page 198

Option Requirements for Civil Engineering Technology – Building Construction Technology .....17.0 Credit Hrs.

Courses		Credit Hrs.
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) **OR**	
ARCH 1120	Beginning REVIT (Building)	4.0
SCET 1140	Intermediate REVIT (Structure)	4.0

The degree option is a specialization within a program. Although students may complete 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

Surveying Technology 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	58.0
Option Requirements	19.5
Total Credit Hours Required	**104.5**

General Education Requirements ..... listed on page 198

Major Requirements for Civil Engineering Technology ..... listed on page 198

Option Requirements for Civil Engineering Technology – Surveying Technology .....19.5 Credit Hrs.

Courses		Credit Hrs.
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 a specialization within a program. Although students may complete multiple options within this program, only the major degree is awarded.

Civil Engineering Technology (CETCE)

Award: Certificate of Achievement
Program location: Elkhorn Valley Campus

The Civil Engineering Technology Certificate 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.

GRADUATION REQUIREMENTS	
General Education	13.5
Major Requirements	35.0
Total Credit Hours Required	**48.5**

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

Communications	**Credit Hrs.**	**Quantitative/Numeracy Skills**	**Credit Hrs.**
English Level I (see page 38)	4.5	MATH 1430 Trigonometry	4.5
Humanities/Social Science	**Credit Hrs.**		
Humanities/Social Science ◇	4.5		

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

Major Requirements for Civil Engineering Technology ..... 35.0 Credit Hrs.

Courses		**Credit Hrs.**
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 1120	AutoCAD Essentials	9.0
SCET 1200	Surveying Fundamentals	6.5

Civil Engineering Technology – Specialist Diploma

Award: Specialist Diploma
Program location: Elkhorn Valley Campus

Surveying (CESSD)

The Surveying Specialist Diploma is designed to provide career preparation in land surveying practices. Recipients may seek employment in surveying entry-level positions in engineering, architectural and design firms, and government agencies.

Requirements for Surveying Diploma .....28.5 Credit Hrs.

Courses		Credit Hrs.
SCET 1120	AutoCAD Essentials	9.0
SCET 1200	Surveying Fundamentals ✧	6.5
SCET 2220	Transit and Traverse Surveying	6.5
SCET 2240	Mapping, Staking, and GPS ✧	6.5

Computer-Aided Drafting and Design (DDDSD)

The Computer-Aided Drafting and Design Specialist Diploma is designed to provide 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 Diploma .....26.0 Credit Hrs.

Courses		Credit Hrs.
SCET 1120	AutoCAD Essentials	9.0
SCET 1130	Beginning REVIT (Structure) **OR**	
ARCH 1120	Beginning REVIT (Building) ✧	4.0
SCET 1140	Intermediate REVIT (Structure)	4.0
SCET 1150	AutoCAD Civil 3-D	9.0\

✧Additional prerequisite(s) may be required.

Construction Technology (CSAAS)

Award: Associate in Applied Science Degree
Program location: Applied Technology Center, South Omaha Campus

Construction technology is a growing and diverse field. The Construction Technology program offers a wide array of options including construction management, residential and commercial construction, cabinetry and finishing, and masonry. See the following pages for all program options.

GRADUATION REQUIREMENTS	
General Education	27.0
Major Requirements	18.5
Option Requirements	51.5– 57.0
Total Credit Hours Required	**97.0–102.5**

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

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	Humanities/Social Sciences (see page 38)	4.5
English Level II (see page 38)	4.5	*PSYC 1000 is recommended but may not transfer.*	
ENGL 1220 and ENGL 1240 are recommended but may not transfer.			
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
Mathematics (see page 38)	4.5	HMRL 1010 Human Relations Skills	4.5
MATH 1240 is recommended but may not transfer.		INFO 1001 Information Systems and Literacy	4.5

Major Requirements for Construction Technology....18.5 Credit Hrs.

Courses		Credit Hrs.
CNST 1000	Introduction to Building Construction	3.5
CNST 1010	Printreading II Residential/Light Commercial	3.5
CNST 1050	Introduction to Carpentry	3.5
CNST 2050	Builders Level, Transit and Building Layout	3.5
CNST 2100	Construction Safety	4.5

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

Option Requirements for Construction Technology .....51.5–57.0 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 57.0 credit hrs.	**Concrete/Masonry Construction** 54.5 credit hrs.	**Construction Management** 53.0 credit hrs.
General Construction/Remodeling 54.5 credit hrs.	**Residential Carpentry** 51.5 credit hrs.	**Residential Finish Carpentry/Cabinetry** 54.0 credit hrs.

Construction Technology – Commercial Construction (CSCCO)

Award: Associate in Applied Science Degree
Program location: Applied Technology Center, South Omaha Campus

Commercial Construction 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	50.5
Electives	6.5
Total Credit Hours Required	**102.5**

General Education Requirements..... listed on page 203

Major Requirements for Construction Technology..... listed on page 203

Option Requirements for Construction Technology – Commercial Construction.....50.5 Credit Hrs.

Courses		Credit Hrs.
CNST 1015	Printreading III Commercial	3.5
CNST 1070	EIFS and Stucco Finish	3.5
CNST 1255	Commercial Framing	6.5
CNST 1260	Introduction to Cabinet Making	3.0
CNST 1261	Basic Cabinet Construction	6.5
CNST 1355	Commercial Finish	6.5
CNST 1500	Introduction to Concrete	6.5
CNST 1510	Concrete and Wall Forms	6.5
CNST 2981	Internship	8.0

Electives for Construction Technology – Commercial Construction.....6.5 Credit Hrs.

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

The degree option is a specialization within a program. Although students may complete multiple options within this program, only the major degree is awarded.

Construction Technology – Concrete/Masonry Construction (CSMCO)

Award: Associate in Applied Science Degree
Program location: Applied Technology Center, South Omaha Campus

Concrete/Masonry Construction 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	48.0
Electives	6.5
Total Credit Hours Required	**100.0**

General Education Requirements ..... listed on page 203

Major Requirements for Construction Technology ..... listed on page 203

Option Requirements for Construction Technology – Concrete/Masonry Construction .....48.0 Credit Hrs.

Courses		Credit Hrs.
CNST 1015	Printreading III Commercial	3.5
CNST 1070	EIFS and Stucco Finish	3.5
CNST 1400	Introduction to Masonry	6.5
CNST 1410	Advanced Masonry Construction	6.5
CNST 1500	Introduction to Concrete	6.5
CNST 1510	Concrete and Wall Forms	6.5
CNST 2130	Construction Estimating	4.0
CNST 2981	Internship	8.0
WELD 1500	SMAW (Stick) – Flat	3.0

Electives for Construction Technology – Concrete/Masonry Construction .....6.5 Credit Hrs.

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

The degree option is a specialization within a program. Although students may complete multiple options within this program, only the major degree is awarded.

Construction Technology – Construction Management (CSCMO)

Award: Associate in Applied Science Degree
Program location: Applied Technology Center, South Omaha Campus

Construction Management provides students with knowledge and entry-level skills desirable for construction entrepreneurship, as well as supervision of a variety of construction projects. Students entering this option should have four years minimum field experience or a formal degree in the area of construction.

GRADUATION REQUIREMENTS	
General Education	27.0
Major Requirements	18.5
Option Requirements	46.5
Electives	6.5
Total Credit Hours Required	**98.5**

General Education Requirements ..... **listed on page 203**

Major Requirements for Construction Technology ..... **listed on page 203**

Option Requirements for Construction Technology – Construction Management .....46.5 Credit Hrs.

Courses		Credit Hrs.
CNST 1015	Printreading III Commercial	3.5
CNST 1350	Floor, Wall, and Ceiling Framing	6.5
CNST 1400	Introduction to Masonry	6.5
CNST 1500	Introduction to Concrete	6.5
CNST 1510	Concrete and Wall Forms	3.5
CNST 2130	Construction Estimating	4.0
CNST 2140	Jobsite Management	4.5
CNST 2150	Construction Law	3.5
CNST 2981	Internship	8.0

Electives for Construction Technology – Construction Management .....6.5 Credit Hrs.

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

The degree option is a specialization within a program. Although students may complete multiple options within this program, only the major degree is awarded.

Construction Technology – General Construction/Remodeling (CSGCO)

Award: Associate in Applied Science Degree
Program location: Applied Technology Center, South Omaha Campus

General Construction/Remodeling 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	48.0
Electives	6.5
Total Credit Hours Required	**100.0**

General Education Requirements ..... listed on page 203

Major Requirements for Construction Technology ..... listed on page 203

Option Requirements for Construction Technology – General Construction/Remodeling .....48.0 Credit Hrs.

Courses		Credit Hrs.
CNST 1070	EIFS and Stucco Finish	3.5
CNST 1220	Demolition and Remodeling	6.5
CNST 1350	Floor, Wall, and Ceiling Framing	6.5
CNST 1400	Introduction to Masonry	6.5
CNST 1500	Introduction to Concrete	6.5
CNST 2130	Construction Estimating	4.0
CNST 2360	Roof Framing	6.5
CNST 2981	Internship	8.0

Electives for Construction Technology – General Construction/Remodeling .....6.5 Credit Hrs.

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

The degree option is a specialization within a program. Although students may complete multiple options within this program, only the major degree is awarded.

Construction Technology – Residential Carpentry (CSRCO)

Award: Associate in Applied Science Degree
Program location: Applied Technology Center, South Omaha Campus

Residential Carpentry provides students with knowledge and entry-level skills desirable for success in the residential field of carpentry.

GRADUATION REQUIREMENTS	
General Education	27.0
Major Requirements	18.5
Option Requirements	44.0
Electives	7.5
Total Credit Hours Required	**97.0**

General Education Requirements ..... **listed on page 203**

Major Requirements for Construction Technology ..... **listed on page 203**

Option Requirements for Construction Technology – Residential Carpentry .....44.0 Credit Hrs.

Courses		Credit Hrs.
CNST 1220	Demolition and Remodeling	6.5
CNST 1250	Interior Finish	6.5
CNST 1350	Floor, Wall, and Ceiling Framing	6.5
CNST 1370	Exterior Finish	6.5
CNST 2360	Roof Framing	6.5
CNST 2380	Stair Construction	3.5
CNST 2981	Internship	8.0

Electives for Construction Technology – Residential Carpentry .....7.5 Credit Hrs.

Courses	Credit Hrs.
Choose 7.5 credit hours from the following subjects: ACCT, ARCH, BSAD, CNST, ELTR, ENGL, ENTR, FINA, GEOG, HMRL, HORT, HVAC, INCT, INFO, INTD, MATH, PHYS, PSYC, RDLS, REES, SCET, SCIE, SPAN, WELD, and WORK.	

The degree option is a specialization within a program. Although students may complete multiple options within this program, only the major degree is awarded.

Construction Technology – Residential Finish Carpentry/Cabinetry (CSRFO)

Award: Associate in Applied Science Degree
Program location: Applied Technology Center, South Omaha Campus

Residential Finish Carpentry/Cabinetry 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	51.0
Electives	3.0
Total Credit Hours Required	**99.5**

General Education Requirements ..... listed on page 203

Major Requirements for Construction Technology ..... listed on page 203

Option Requirements for Construction Technology – Residential Finish Carpentry/Cabinetry .....51.0 Credit Hrs.

Courses		Credit Hrs.
CNST 1070	EIFS and Stucco Finish	3.5
CNST 1220	Demolition and Remodeling	6.5
CNST 1250	Interior Finish	6.5
CNST 1260	Introduction to Cabinet Making	3.0
CNST 1261	Basic Cabinet Construction	6.5
CNST 1270	General Painting, Staining, and Cabinet Finishing	3.0
CNST 1370	Exterior Finish	6.5
CNST 2130	Construction Estimating	4.0
CNST 2380	Stair Construction	3.5
CNST 2981	Internship	8.0

Electives for Construction Technology – Residential Finish Carpentry/Cabinetry .....3.0 Credit Hrs.

Courses	Credit Hrs.
Choose 3.0 credit hours from the following subjects: ACCT, ARCH, BSAD, CNST, ELTR, ENGL, ENTR, FINA, GEOG, HMRL, HORT, HVAC, INCT, NFO, INTD, IMATH, PHYS, PSYC, RDLS, REES, SCET, SCIE, SPAN, WELD, and WORK.	

The degree option is a specialization within a program. Although students may complete multiple options within this program, only the major degree is awarded.

Construction Technology – Concrete and Masonry Specialist (CSMCE)

Award: Certificate of Achievement
Program location: Applied Technology Center, South Omaha Campus

With the Concrete and Masonry Specialist Certificate, students acquire basic skills in the concrete and masonry trade. Students acquire knowledge and skills needed for an entry-level position in concrete and masonry. This certificate leaves students employable in both the residential and commercial areas of construction.

GRADUATION REQUIREMENTS	
General Education	13.5
Major Requirements	40.0
Total Credit Hours Required	**53.5**

General Education REquirements ..... 13.5 Credit Hrs.

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 38) *ENGL 1220 is recommended but may not transfer.*	4.5	Humanities/Social Sciences (see page 38) *PSYC 1000 is recommended but may not transfer.*	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
Mathematics (see page 38) *MATH 1240 is recommended but may not transfer.*	4.5		

Major Requirements for Construction Technology – Concrete and Masonry Specialist.....40.0 Credit Hrs.

Courses		Credit Hrs.
CNST 1000	Introduction to Building Construction	3.5
CNST 1010	Printreading II Residential/Light Commercial	3.5
CNST 1070	EIFS and Stucco Finish	3.5
CNST 1400	Introduction to Masonry	6.5
CNST 1410	Advanced Masonry Construction	6.5
CNST 1500	Introduction to Concrete	6.5
CNST 1510	Concrete and Wall Forms	6.5
CNST 2050	Builders Level, Transit, and Building Layout	3.5

Construction Technology – Framing and Finishing Specialist (CSFCE)

Award: Certificate of Achievement
Program location: South Omaha Campus

With the Framing and Finishing Specialist Certificate, students acquire basic framing and finishing skills using measuring devices and learn the application of hand and power tools. Graduates are employable in large and small construction companies in both framing and finishing.

GRADUATION REQUIREMENTS	
General Education	13.5
Major Requirements	36.5
Total Credit Hours Required	**50.0**

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

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 38) *ENGL 1220 is recommended but may not transfer.*	4.5	Humanities/Social Sciences (see page 38) *PSYC 1000 is recommended but may not transfer.*	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
Mathematics (see page 38) *MATH 1240 is recommended but may not transfer.*	4.5		

Major Requirements for Construction Technology – Framing and Finishing Specialist .....36.5 Credit Hrs.

Courses		Credit Hrs.
CNST 1010	Printreading II Residential/Light Commercial	3.5
CNST 1250	Interior Finish	6.5
CNST 1350	Floor, Wall, and Ceiling Framing	6.5
CNST 1370	Exterior Finish	6.5
CNST 2050	Builders Level, Transit, and Building Layout	3.5
CNST 2360	Roof Framing	6.5
CNST 2380	Stair Construction	3.5

Construction Technology – Specialist Diplomas

Award: Specialist Diploma
Program location: Applied Technology Center, South Omaha Campus

Cabinetry Construction (CCCSD)

The Cabinetry Construction Specialist Diploma is configured to supply students with knowledge and skills required for entry-level employment in the cabinet and furniture making industry. 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 Diploma...30.5 Credit Hrs.

Courses		Credit Hrs.
CNST 1010	Printreading II Residential/Light Commercial	3.5
CNST 1050	Introduction to Carpentry	3.5
CNST 1250	Interior Finish	6.5
CNST 1260	Introduction to Cabinet Making	3.0
CNST 1261	Basic Cabinet Construction	6.5
CNST 1270	General Painting, Staining, and Cabinet Finishing	3.0
CNST 2100	Construction Safety	4.5

Commercial Construction (CCOSD)

The Commercial Construction Specialist Diploma is for students who have the desire or need to enter the field of commercial construction as soon as possible. Students will partake in classroom and practical application exercises, which will supply them with knowledge and skills in the construction management area. A 30-hour OSHA construction safety certification is included.

Requirements for Commercial Construction Diploma .....28.5 Credit Hrs.

Courses		Credit Hrs.
CNST 1000	Introduction to Building Construction	3.5
CNST 1010	Printreading II Residential/Light Commercial	3.5
CNST 1015	Printreading III Commercial	3.5
CNST 1050	Introduction to Carpentry	3.5
CNST 1255	Commercial Framing	6.5
CNST 1510	Concrete and Wall Forms	3.5
CNST 2100	Construction Safety	4.5

Construction Management (CCMSD)

The Construction Management Specialist Diploma is for well-seasoned craft workers that have six years or more experience and the desire or need for skills required to move into the area of supervision. Students will partake in classroom and practical application exercises, which will supply them with knowledge and skills in the construction management area. A 30-hour OSHA construction safety certification is included.

Requirements for Construction Management Diploma .....27.0 Credit Hrs.

Courses		Credit Hrs.
CNST 1000	Introduction to Building Construction	3.5
CNST 1010	Printreading II Residential/Light Commercial	3.5
CNST 1015	Printreading III Commercial	3.5
CNST 2100	Construction Safety	4.5
CNST 2130	Construction Estimating	4.0
CNST 2140	Jobsite Management ◇	4.5
CNST 2150	Construction Law	3.5

◇Additional prerequisite(s) may be required.

General Construction/Remodeling (CCRSD)

The General Construction/Remodeling Specialist Diploma is designed to assist 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 Diploma .....27.5 Credit Hrs.

Courses		Credit Hrs.
CNST 1000	Introduction to Building Construction	3.0
CNST 1010	Printreading II Residential/Light Commercial	3.5
CNST 1050	Introduction to Carpentry	3.5
CNST 1220	Demolition and Remodeling	6.5
CNST 1250	Interior Finish	6.5
CNST 2100	Construction Safety	4.5

Residential Carpentry (CRCSD)

The Residential Carpentry Specialist Diploma 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 will supply them with knowledge and skills in the residential carpentry area. A 30-hour OSHA construction safety certification is included.

Requirements for Residential Carpentry Diploma .....28.0 Credit Hrs.

Courses		Credit Hrs.
CNST 1000	Introduction to Building Construction	3.5
CNST 1010	Printreading II Residential/Light Commercial	3.5
CNST 1050	Introduction to Carpentry	3.5
CNST 1350	Floor, Wall, and Ceiling Framing	6.5
CNST 1370	Exterior Finish	6.5
CNST 2100	Construction Safety	4.5

Residential Finish Carpentry (CRFSD)

The Residential Finish Carpentry Specialist Diploma 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 will 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 Diploma.....28.0 Credit Hrs.

Courses		Credit Hrs.
CNST 1000	Introduction to Building Construction	3.5
CNST 1010	Printreading II Residential/Light Commercial	3.5
CNST 1050	Introduction to Carpentry	3.5
CNST 1250	Interior Finish	6.5
CNST 1370	Exterior Finish	6.5
CNST 2100	Construction Safety	4.5

Masonry and Concrete Construction (CMCSD)

The Masonry and Concrete Construction Specialist Diploma is designed to supply students with knowledge and skills to begin a career in masonry as well as supply seasoned masons with advanced skills. Included are materials and testing, bonding and layout, advanced arch-work, and a two-hour OSHA construction safety certification.

Requirements for Masonry and Concrete Diploma....30.5 Credit Hrs.

Courses		Credit Hrs.
CNST 1050	Introduction to Carpentry	3.5
CNST 1400	Introduction to Masonry	6.5
CNST 1410	Advanced Masonry Construction	6.5
CNST 1500	Introduction to Concrete	6.5
CNST 2100	Construction Safety	4.5
WELD 1500	SMAW (Stick) – Flat	3.0

Diesel Technology (DTAAS)

Award: Associate in Applied Science Degree
Program location: Applied Technology Center

This program prepares students for a career in the growing transportation industry. Students will interact with industry in real-world scenarios during the internships, gaining the confidence and skills needed to succeed. Technicians may work on light- to heavy-duty vehicles or expand into various other fields in the transportation industry.

GRADUATION REQUIREMENTS	
General Education	27.0
Major Requirements	34.0
Option Requirements	37.0–42.0
Total Credit Hours Required	**99.0–103.0**

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

Communications	Credit Hrs.	Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	Humanities/Social Sciences (see page 38)	4.5
English Level II (see page 38)	4.5	*PSYC 1000 is recommended.*	
ENGL 1220 and ENGL 1240 are recommended.			
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
Mathematics (see page 38)	4.5	HMRL 1010 Human Relations Skills	4.5
MATH 1240 is recommended.		INFO 1001 Microcomputers Fundamentals	4.5

Major Requirements for Diesel Technology.....34.0 Credit Hrs.

Courses		Credit Hrs.
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 Techs I	2.5
DESL 1302	CDL for Diesel Techs 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	Heavy Equipment	Power Generation
38.0–41.0 credit hrs.	39.0–42.0 credit hrs.	37.0–41.0 credit hrs.

Diesel Technology – Diesel Service (DTDSO)

Award: Associate in Applied Science Degree
Program location: Applied Technology Center

With the complexity of trucks and the increasing need for qualified, trained diesel technicians, this program will provide students with the fundamentals needed for employment in the field of diesel service technology.

GRADUATION REQUIREMENTS	
General Education	27.0
Major Requirements	34.0
Option Requirements	38.0– 41.0
Total Credit Hours Required	**99.0–102.0**

General Education Requirements..... listed on page 215

Major Requirements for Diesel Technology..... listed on page 215

Option Requirements for Diesel Technology – Diesel Service .....38.0–41.0 Credit Hrs.

Courses		Credit Hrs.
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 Drivetrain^	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 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.

^Optional but recommended

Diesel Technology – Heavy Equipment (DTHEO)

Award: Associate in Applied Science Degree
Program location: Applied Technology Center

This program option prepares students for a career in the heavy equipment, construction, and utility industries. This degree option serves students by providing a diverse education of coursework that is taught by faculty with direct experience in the industry. A major strength of this program is the strong hands-on approach to learning.

GRADUATION REQUIREMENTS

General Education	27.0
Major Requirements	34.0
Option Requirements	39.0– 42.0
Total Credit Hours Required	**100.0–103.0**

General Education Requirements..... listed on page 215

Major Requirements for Diesel Technology..... listed on page 215

Option Requirements for Heavy Equipment.....39.0–42.0 Credit Hrs.

Courses		Credit Hrs.
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 Drivetrain^	3.0
DESL 2250	Field Service Maintenance	6.0
DESL 2981	Diesel Internship I	8.0
WELD 1262	Quickstart	3.0
WELD 1500	SMAW (Stick) – Flat	3.0

^Optional but recommended

Diesel Technology – Power Generation (DTPGO)

Award: Associate in Applied Science Degree
Program location: Applied Technology Center

This program prepares students for a career in the growing diesel power generation field. This option is one of only a few nationally that allows students to get both diesel and alternative fuel engine training while learning AC power generation methods and distribution technologies.

GRADUATION REQUIREMENTS	
General Education	27.0
Major Requirements	34.0
Option Requirements	37.0– 41.0
Total Credit Hours Required	**98.0–102.0**

General Education Requirements..... listed on page 215

Major Requirements for Diesel Technology..... listed on page 215

Option Requirements for Diesel Technology – Power Generation.....37.0–41.0 Credit Hrs.

Courses		Credit Hrs.
DESL 1115	Alternative Fueled Engines	3.0
DESL 2100	Heavy-Duty Power Trains^	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

^Optional but recommended

Diesel Service Technology – Specialist Diplomas

Award: Specialist Diploma
Program location: Applied Technology Center

Diesel Truck (DDES1)

Students who complete the requirements of the Diesel Truck Specialist Diploma will gain the knowledge and skills needed for an entry-level position in the transportation industry. The diploma provides students with fundamental instruction in the basic operation of diesel engines, service, brakes, electrical systems, and power trains.

Requirements for Diesel Truck Diploma .....33.0–36.0 Credit Hrs.

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

^Optional but recommended

CDL–A Truck Driving (CDLSD)

The successful completion of the CDL–A Truck Driving Specialist Diploma will provide students with the knowledge and skills needed to obtain a CDL Class A truck driving license. With this license, graduates will be able to apply for driving jobs in the trucking industry.

Requirements for CDL-A Truck Driving Diploma.....31.5 Credit Hrs.

Courses		Credit Hrs.
DESL 1000	Diesel Preventive Maintenance	3.0
DESL 1230	Diesel Engine Fundamentals	4.0
DESL 1310	Truck Driving CDL Training I	8.5
DESL 1320	Truck Driving CDL Training II	9.0
DESL 2980	On-the-Job Training/Work Internship	6.0
HLTH 1010	Heartsaver First Aid with CPR and AED	1.0

HLTH 1010 is required for those who do not currently hold a valid CPR/First Aid card.

Electrical Apprenticeship (AREAO)

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

The Electrical Apprenticeship program is for students preparing to become licensed electricians. The courses are offered on an evening schedule only, allowing students to seek employment with electrical contractors during the day. Students receive college credit for successful completion of the coursework at the same time they are preparing for the licensing exam. Students should be employed full time in an electrical trade while taking classes. For more information about this program, contact Lyle Hendrickson at (402) 738-4034.

GRADUATION REQUIREMENTS	
General Education	27.0
Major Requirements	16.5
Apprenticeship Classes	56.0
Total Credit Hours Required	**99.5**

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

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	Humanities/Social Sciences (see page 38)	4.5
English Level II (see page 38)	4.5	*PSYC 1000 is recommended.*	
ENGL 1220 and ENGL 1240 are recommended.			
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
Mathematics (see page 38)	4.5	HMRL 1010 Human Relations Skills	4.5
MATH 1240 is recommended.		INFO 1001 Information Systems and Literacy	4.5

Major Requirements for Electrical Apprenticeship ....16.5 Credit Hrs.

Courses		Credit Hrs.
CNST 2100	Construction Safety	4.5
ELTR 1350	Electrical Printreading	3.0
INCT 1212	Motor and Machine Controls	9.0

Apprenticeship Requirements for Electrical Apprenticeship .....56.0 Credit Hrs.

Courses		Credit Hrs.
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 (ETAAS)

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

The Electrical Technology program provides education and training for students who wish to get into the electrical field. Students who complete this program will be exposed to electrical systems in residential wiring and commercial wiring, as well as in industrial motor controls.

GRADUATION REQUIREMENTS	
General Education	27.0
Major Requirements	72.0
Total Credit Hours Required	**99.0**

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

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	Humanities/Social Sciences (see page 38)	4.5
English Level II (see page 38)	4.5	*PSYC 1000 is recommended.*	
ENGL 1220 and ENGL 1240 are recommended.			
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
Mathematics (see page 38)	4.5	HMRL 1010 Human Relations Skills	4.5
MATH 1240 is recommended.		INFO 1001 Information Systems and Literacy	4.5

Major Requirements for Electrical Technology .....72.0 Credit Hrs.

Courses		Credit Hrs.
ELTR 1200	Basic Electricity	6.5
ELTR 1210	Residential Wiring	9.0
ELTR 1220	Commercial Wiring	9.0
ELTR 1350	Electrical Printreading	3.0
ELTR 2040	Low-Voltage Applications	6.5
ELTR 2240	NEC 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

ELECTRICAL TECHNOLOGY COURSEWORK – TRADITIONAL TRACK							
FIRST YEAR							
First Quarter (Fall)		Second Quarter (Winter)		Third Quarter (Spring)		Fourth Quarter (Summer)	
ELTR 1200	6.5	INCT 2050	3.0	ELTR 1220	9.0	ELTR 2981	8.0
INCT 1000	4.5	INFO 1001	4.5	ENGL 1220	4.5		8.0
MATH 1240	4.5	ELTR 1210	9.0	HMRL 1010	4.5		
	15.5		16.5		18.0		
SECOND YEAR							
Fifth Quarter (Fall)		Sixth Quarter (Winter)		Seventh Quarter (Spring)			
ENGL 1240	4.5	ELTR 2040	6.5	ELTR 2331	4.5		
ELTR 1350	3.0	ELTR 2240	4.5	Humanities/			
INCT 1212	9.0	INCT 2231	4.5	Social Science	4.5		
	16.5		15.5		9.0		

INDUSTRIAL / TECHNICAL

Electrical Technology – Industrial Electrical (ETICE)

Award: Certificate of Achievement
Program location: South Omaha Campus

The Industrial Electrical Certificate is designed for students that may work in the industrial setting. Students will gain a working knowledge of industrial electrical systems and control circuit wiring.

GRADUATION REQUIREMENTS	
General Education	13.5
Major Requirements	38.0
Total Credit Hours Required	**51.5**

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

Communications	Credit Hrs.	Quantitative/Numeracy Skills	Credit Hrs.
ENGL 1220 Technical Writing	4.5	MATH 1240 Applied Mathematics	4.5
Other	**Credit Hrs.**		
INFO 1001 Information Systems and Literacy	4.5		

Major Requirements for Electrical Technology – Industrial Technology.....38.0 Credit Hrs.

Courses		Credit Hrs.
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

Electrical Technology – Building Electrical (ETBCE)

Award: Certificate of Achievement
Program location: South Omaha Campus

The Building Electrical Dertificate is designed for students that may work in the electrical field. Students will gain a knowledge of facilities and residential wiring.

GRADUATION REQUIREMENTS	
General Education	13.5
Major Requirements	40.0
Total Credit Hours Required	**53.5**

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

Communications	Credit Hrs.	Quantitative/Numeracy Skills	Credit Hrs.
ENGL 1220 Technical Writing	4.5	MATH 1240 Applied Mathematics	4.5
Other	**Credit Hrs.**		
INFO 1001 Information Systems and Literacy	4.5		

Major Requirements for Electrical Technology – Building Electrical .....40.0 Credit Hrs.

Courses		Credit Hrs.
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	NEC Code	4.5
INCT 1000	Industrial Safety and Health	4.5

Electrical Technology – Specialist Diplomas

Award: Specialist Diploma
Program location: South Omaha Campus

Residential Electrical (ETRS1)

Students who complete the Residential Electrical Specialist Diploma will have the minimum skills to get an entry-level job wiring residential homes.

Requirements for Residential Electrical Diploma .....31.0 Credit Hrs.

Courses		Credit Hrs.
ELTR 1200	Basic Electricity	6.5
ELTR 1210	Residential Wiring	9.0
ELTR 2040	Low-Voltage Applications	6.5
ELTR 2240	NEC Code	4.5
INCT 1000	Industrial Safety and Health	4.5

Commercial Electrical (ETCS1)

Students who complete the Commercial Electrical Specialist Diploma will have the minimum skills to get an entry-level job wiring in a commercial building.

Requirements for Commercial Electrical Diploma .....40.0 Credit Hrs.

Courses		Credit Hrs.
ELTR 1200	Basic Electricity	6.5
ELTR 1220	Commercial Wiring	9.0
ELTR 2040	Low-Voltage Applications	6.5
ELTR 2240	NEC Code	4.5
INCT 1000	Industrial Safety and Health	4.5
INCT 1212	Motor and Machine Controls	9.0

Industrial Electrical (ETIS1)

Students who complete the Industrial Electrical Specialist Diploma will have the minimum skills to get an entry-level job wiring in control circuits in an industrial setting.

Requirements for Industrial Electrical Diploma .....29.0 Credit Hrs.

Courses		Credit Hrs.
ELTR 1200	Basic Electricity	6.5
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

Programmable Logic Controllers (ETPSD)

The Programmable Logic controllers Specialist Diploma is designed to give students the information and skills needed for the installation and maintenance of programmable logic controllers as used in industry, building maintenance, and entertainment.

Requirement for
Programmable Logic Controllers Diploma .....25.5 Credit Hrs.

Courses			Credit Hrs.
INCT	1000	Industrial Safety and Health	4.5
INCT	2050	Problem Solving	3.0
INCT	2231	Programmable Logic Controllers I	4.5
INCT	2232	Programmable Logic Controllers II	4.5
INCT	2235	Programmable Logic Controllers Applications	9.0

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 will learn the basics of workplace safety and health as well as effective problem-solving and troubleshooting skills. Depending on the chosen degree option, students will be prepared to work in building maintenance, industrial maintenance, precision machining, and product distribution fields. Coursework is taught by faculty with direct experience in the industry. A major strength of the program is the strong hands-on approach to learning.

GRADUATION REQUIREMENTS	
General Education	27.0
Major Requirements	7.5
Option Requirements	61.5–63.5
Total Credit Hours Required	**96.0–98.0**

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

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	Humanities/Social Sciences (see page 38)	4.5
English Level II (see page 38)	4.5	*PSYC 1000 is recommended.*	
ENGL 1220 and ENGL 1240 are recommended.			
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
Mathematics (see page 38)	4.5	HMRL 1010 Human Relations Skills	4.5
MATH 1240 is recommended.		INFO 1001 Information Systems and Literacy	4.5

Major Requirements for Industrial and Commercial Trades .....7.5 Credit Hrs.

Courses		Credit Hrs.
INCT 1000	Industrial Safety and Health	4.5
INCT 2050	Problem Solving	3.0

Option Requirements for Industrial and Commercial Trades .....61.5–63.5 Credit Hrs.

The Industrial and Commercial Trades 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.	**Electrical Mechanical Maintenance** 63.0 credit hrs.	**Industrial Distribution** 71.0 credit hrs.
Precision Machine Technology 61.5 credit hrs.		

Industrial and Commercial Trades – Building Maintenance (IMCB2)

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

The Building Maintenance option provides education and training for maintenance personnel at residential and commercial facilities. Students learn how the major building, electrical, heating, and air and plumbing systems work together. Sudents will get hands-on training in all of these areas.

GRADUATION REQUIREMENTS	
General Education	27.0
Major Requirements	7.5
Option Requirements	62.0
Total Credit Hours Required	**96.5**

General Education Requirements ..... listed on page 226

Major Requirements for Industrial and Commercial Trades ..... listed on page 226

Option Requirements for Industrial and Commercial Trades – Building Maintenance .....62.0 Credit Hrs.

Courses		Credit Hrs.
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/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 a specialization within a program. Although students may complete 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

The Electrical/Mechanical Maintenance 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	63.0
Total Credit Hours Required	**97.5**

General Education Requirements..... listed on page 226

Major Requirements for Industrial and Commercial Trades ..... listed on page 226

Option Requirements for Industrial and Commercial Trades – Electrical/Mechanical Maintenance .....63.0 Credit Hrs.

Courses		Credit Hrs.
ELTR 1200	Basic Electricity	6.5
INCT 1050	Mechanical Printreading	4.0
INCT 1212	Motor and Machine Controls	9.0
INCT 2060	Mechanical Power Systems	4.0
INCT 2070	Hydraulics and Pneumatics	3.5
INCT 2231	Programmable Logic Controllers I	4.5
INCT 2232	Programmable Logic Controllers II	4.5
INCT 2235	Programmable Logic Controllers Applications	9.0
WELD 1100	Industrial Cutting Processes	3.0
WELD 1200	GMAW (MIG) – Steel I	3.0
WELD 1500	SMAW (Stick) – Flat	3.0
Choose a minimum of 9.0 hours from the following courses:		
DRAF 1100	AutoCAD Fundamentals	9.0
ELTR 1210	Residential Wiring	9.0
ELTR 1220	Commercial Wiring	9.0
ELTR 2040	Low-Voltage Applications	6.5
ELTR 2240	NEC Code	4.5
INCT 1302	Stationary Engineering I	3.0
INCT 1303	Basic Plumbing	6.5
INCT 1400	Introduction to Precision Machine Technology	6.5
INCT 2302	Stationary Engineering II	4.0
INCT 2981	Internship	Variable
UTIL 1020	Electricity I	5.5
WELD 1300	Oxyacetylene Welding (OAW)	3.0
Electives		6.0

The degree option is a specialization within a program. Although students may complete multiple options within this program, only the major degree is awarded.

Continued...

Below is a suggested guide for students planning a career in electrical/mechanical maintenance after two years of full-time study.

FIRST YEAR							
First Quarter (Fall)		**Second Quarter (Winter)**		**Third Quarter (Spring)**		**Fourth Quarter (Summer)**	
INCT 1000	4.5	ENGL 1220	4.5	ENGL 1240	4.5	Electives	9.0
INCT 2050	3.0	INCT 1050	4.0	Humanities/Social			9.0
MATH 1240	4.5	INCT 2060	4.0	Science elective	4.5		
	12.0		12.5	INCT 2070	3.5		
					12.5		
SECOND YEAR							
Fifth Quarter (Fall)		**Sixth Quarter (Winter)**		**Seventh Quarter (Spring)**		**Eighth Quarter (Summer)**	
ELTR 1200	6.5	INCT 1212	9.0	INCT 2231	4.5	INCT 2235	9.0
HMRL 1010	4.5	INFO 1001	4.5	INCT 2232	4.5		9.0
WELD 1100	3.0	WELD 1500	3.0	WELD 1200	3.0		
	14.0		16.5		12.0		

Industrial and Commercial Trades – Industrial Distribution (IMID1)

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

The Industrial Distribution Degree provides education training for product distribution representatives who move products from the manufacturer to the user and are employed in a wide variety of industries. Job opportunities include sales, product support, product application specialists, management trainees, and shipping/warehouse personnel.

This degree is composed of two certificates—Industrial Distribution I and Industrial Distribution II. Students who complete both certificates will be awarded the Associate of Applied Science Degree.

Each certificate can be taken separately. Persons with little or no experience as an industrial sales representative should start with the Industrial Distribution I certificate. Persons with two or more years experience in the field may just want to take the Industrial Distribution II certificate.

GRADUATION REQUIREMENTS	
General Education	27.0
Certificate I Requirements	26.0
Certificate II Requirements	25.0
Electives	20.0
Total Credit Hours Required	**98.0**

Industrial Distribution I (ID1CE)

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

Communications	Credit Hrs.	Quantitative/Numeracy Skills	Credit Hrs.
ENGL 1210 Applied Communications **OR** ENGL 1230 Business Writing	4.5	MATH 1220 Business Math	4.5
Other	**Credit Hrs.**		
INFO 1001 Information Systems and Literacy	4.5		

Major Requirements for Certificate I.....26.0 Credit Hrs.

Courses		Credit Hrs.
BSAD 1000	Introduction to Business	4.5
BSAD 1200	Principles of Selling	4.5
INCT 1000	Industrial Safety and Health	4.5
INCT 1500	Introduction to Distribution	4.5
INCT 2981	Internship	8.0

Elective Requirements for Certificate I.....9.0 Credit Hrs.

Courses	Credit Hrs.
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 the Chemistry (CHEM), Construction (CNST), Electrical Technology (ELTR), Entrepreneurship (ENTR), Industrial and Commercial Trades (INCT), Information Technology (INFO), Mechanical Design Technology (DRAF), and Welding (WELD).	

Continued...

Industrial Distribution II (ID2CE)

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

Communications	Credit Hrs.	Humanities/Social Science	Credit Hrs.
ENGL 1240 Oral and Written Reports ◇	4.5	Humanities/Social Sciences (see page 38)	4.5
Other	**Credit Hrs.**		
INFO 1001 Information Systems and Literacy	4.5		

◇Additional prerequisite(s) may be required.

Major Requirements for Certificate II.....25.0 Credit Hrs.

Courses		Credit Hrs.
BSAD 1010	Principles of Marketing	4.5
BSAD 2100	Principles of Management	4.5
BSAD 2400	Business Logistics	4.5
BSAD 2410	Purchasing and Materials Management	4.5
INCT 1050	Mechanical Printreading	4.0
INCT 2050	Problem Solving	3.0

Elective Requirements for Certificate II.....11.0 Credit Hrs.

Courses	Credit Hrs.
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

The Precision Machine Technology option provides education and training in machine tool operation and related subjects. Instruction covers bench layout, machine tool operation and metal removal processes, measuring devices, and classifications of materials. Training includes hands-on activity and individualized instruction.

GRADUATION REQUIREMENTS	
General Education	27.0
Major Requirements	7.5
Option Requirements	61.5
Total Credit Hours Required	**96.0**

General Education Requirements ..... listed on page 226

Major Requirements for Industrial and Commercial Trades ..... listed on page 226

Option Requirements for Industrial and Commercial Trades – Precision Machine Technology .....61.5 Credit Hrs.

Courses			Credit Hrs.
INCT	1050	Mechanical Printreading	4.0
INCT	1400	Introduction to Precision Machine Technology	6.5
INCT	1410	Precision Layout and Finishing	4.0
INCT	1420	Basic Machine Lathe	4.0
INCT	1421	Basic Milling Machine	4.0
INCT	1422	Basic Grinding Machine: Setup and Operation	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
Choose 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	GMAW (MIG) – Steel I	3.0
WELD	1400	GTAW (TIG) – Steel I	3.0
Electives			6.0

The degree option is a specialization within a program. Although students may complete multiple options within this program, only the major degree is awarded.

Industrial and Commercial Trades – Specialist Diplomas

Award: Specialist Diploma
Program location: South Omaha Campus

Beginning Industrial Sales Representative (IBISD)

Students who complete the Beginning Industrial Sales Representative Specialist Diploma will have the minimal skills to get an entry-level job as a sales representative in a manufacturing distribution company.

Requirements for Beginning Industrial Sales Representative Diploma .....27.0 Credit Hrs.

Courses		Credit Hrs.
BSAD 1000	Introduction to Business	4.5
BSAD 1200	Principles of Selling	4.5
ENGL 1210	Applied Communications **OR**	
ENGL 1230	Business Writing	4.5
INCT 1000	Industrial Safety and Health	4.5
INCT 1500	Introduction to Distribution	4.5
INFO 1001	Information Systems and Literacy	4.5

Advanced Industrial Sales Representative (IAISD)

The Advanced Industrial Sales Representative Specialist Diploma will enhance students' knowledge of distribution sales. This diploma is generally for students who are already doing sales or who have completed the Beginning Industrial Sales Representative Specialist Diploma.

Requirements for Advanced Industrial Sales Representative Diploma .....25.0 Credit Hrs.

Courses		Credit Hrs.
BSAD 1010	Principles of Marketing	4.5
BSAD 2100	Principles of Management	4.5
BSAD 2400	Business Logistics	4.5
BSAD 2410	Purchasing and Materials Management	4.5
INCT 1050	Mechanical Printreading	4.0
INCT 2050	Problem Solving	3.0

Building Maintenance (IBMSD)

Students who complete the Building Maintenance Specialist Diploma will enhance the skills needed for maintenance positions in hospitals, schools, commercial buildings, and property management.

Requirements for Building Maintenance Diploma .....27.0 Credit Hrs.

Courses		Credit Hrs.
ELTR 1200	Basic Electricity	6.5
INCT 1000	Industrial Safety and Health	4.5
INCT 1301	Home/Building Maintenance Carpentry	6.5
INCT 1303	Basic Plumbing	6.5
INCT 2050	Problem Solving	3.0

Production Maintenance (IPMSD)

Students who complete the Production Maintenance Specialist Diploma will enhance the skills needed for positions as production workers with some responsibilities for maintenance tasks.

Requirements for Production Maintenance Diploma.....33.0 Credit Hrs.

Courses			Credit Hrs.
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

Electrical Mechanical Systems (IEMSD)

Students who complete the Electrical Mechanical Systems Specialist Diploma will enhance the skills needed for positions as maintenance technicians in manufacturing environments.

Requirements for Electrical Mechanical Systems Diploma .....35.5 Credit Hrs.

Courses			Credit Hrs.
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

Electrical Plant Maintenance (IEPSD)

Students who complete the Electrical Plant Maintenance Specialist Diploma will enhance the skills needed for positions as maintenance technicians who are responsible for their plants electrical systems.

Requirements for Electrical Plant Maintenance Diploma.....29.0 Credit Hrs.

Courses			Credit Hrs.
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 Level I	4.5
INFO	1001	Information Systems and Literacy	4.5

General Plant Maintenance (IGPSD)

Students who complete the General Plant Maintenance Specialist Diploma will enhance the skills needed for positions as machine repair persons in a manufacturing environment.

Requirements for
General Plant Maintenance Diploma .....31.0 Credit Hrs.

Courses			Credit Hrs.
ELTR	1200	Basic Electricity	6.5
INCT	1000	Industrial Safety and Health	4.5
INCT	1212	Motor and Machine Controls	9.0
INCT	1302	Stationary Engineering I	3.0
INCT	2060	Mechanical Power Systems	4.0
INCT	2070	Hydraulics and Pneumatics	4.0

Precision Machine Basics (IMBSD)

Students who complete the Precision Machine Basics Specialist Diploma will enhance the skills needed for positions as millwrights, machinists, mechanics, and production workers.

Requirements for
Precision Machine Basics Diploma .....27.0 Credit Hrs.

Courses			Credit Hrs.
INCT	1000	Industrial Safety and Health	4.5
INCT	1400	Introduction to Precision Machine Technology	6.5
INCT	1410	Precision Layout Finishing	4.0
INCT	1420	Basic Engine Lathe	4.0
INCT	1421	Basic Milling Machine	4.0
INCT	1422	Basic Grinding Machine Setup and Operations	4.0

Mechanical Design Technology (DRAS1)

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

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.

GRADUATION REQUIREMENTS	
General Education	27.0
Major Requirements	72.0
Total Credit Hours Required	**99.0**

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

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	Humanities/Social Sciences (see page 38)	4.5
English Level II (see page 38)	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1310 Intermediate Algebra	4.5	HMRL 1010 Human Relations Skills	4.5
		INFO 1001 Information Systems and Literacy	4.5

Major Requirements for Mechanical Design Technology .....72.0 Credit Hrs.

Courses		Credit Hrs.
DRAF 1100	AutoCAD Fundamentals	9.0
DRAF 1200	Design for Precision (Measurement)	9.0
DRAF 1300	Inventor Fundamentals	9.0
DRAF 1400	Manufacturing Processes Design	9.0
DRAF 2100	SolidWorks Fundamentals	9.0
DRAF 2200	Machine Design Principles	9.0
DRAF 2300	Pro/ENGINEER Fundamentals	9.0
DRAF 2400	Tool Design Processes	9.0

Continued...

Below is a suggested guide for students planning a career in mechanical design technology after two years of full-time study.

FIRST YEAR			
First Quarter	**Second Quarter**	**Third Quarter**	
DRAF 1100 9.0 English Level 1 4.5 INFO 1001 4.5 18.0	DRAF 1200 9.0 English Level II 4.5 MATH 1310 4.5 18.0	DRAF 1300 9.0 Humanities/Social Sciences elective 4.5 13.5	
SECOND YEAR			
Fifth Quarter	**Sixth Quarter**	**Seventh Quarter**	
DRAF 1400 9.0 DRAF 2100 9.0 18.0	DRAF 2200 9.0 DRAF 2300 9.0 18.0	DRAF 2400 9.0 HMRL 1010 4.5 13.5	

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

FIRST YEAR			
First Quarter	**Second Quarter**	**Third Quarter**	**Fourth Quarter**
DRAF 1100 9.0 DRAF 2100 9.0 English Level 1 4.5 INFO 1001 4.5 27.0	DRAF 1400 9.0 DRAF 2300 9.0 English Level II 4.5 MATH 1310 4.5 27.0	DRAF 1300 9.0 DRAF 2200 9.0 Humanities/Social Science elective 4.5 22.5	DRAF 1200 9.0 DRAF 2400 9.0 HMRL 1010 4.5 22.5

Mechanical Design Technology (DRTC1)

Award: Certificate of Achievement
Program location: Fort Omaha Campus

The Mechanical Design Technology Certificate 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
Total Credit Hours Required	**49.5**

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

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	Humanities/Social Sciences (see page 38)	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
MATH 1310 Intermediate Algebra	4.5		

Major Requirements for Mechanical Design Technology .....36.0 Credit Hrs.

Courses		Credit Hrs.
DRAF 1100	AutoCAD Fundamentals	9.0
Choose one course from the following:		
DRAF 1300	Inventor Fundamentals	9.0
DRAF 2100	SolidWorks Fundamentals	9.0
DRAF 2300	Pro/ENGINEER Fundamentals	9.0
Choose two courses from the following:		
DRAF 1200	Design for Precision (Measurement)	9.0
DRAF 1400	Manufacturing Processes Design	9.0
DRAF 2200	Machine Design Principles	9.0
DRAF 2400	Tool Design Processes	9.0

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

Mechanical Design Technology – Specialist Diplomas

Award: Specialist Diploma
Program location: Fort Omaha Campus

Computer-Aided Manufacturing Design (DCMSD)

Students who complete the Computer-Aided Manufacturing Design Specialist Diploma will be able to enhance their job-relevant skills in the workplace using CAD software. They will be able to apply CAD software and 3-D solids modeling in the design of mechanisms and other machine components.

Requirements for Computer-Aided Manufacturing Design Diploma.....27.0 Credit Hrs.

Courses		Credit Hrs.
DRAF 1100	AutoCAD Fundamentals	9.0
Choose one course from the following:		
DRAF 1300	Inventor Fundamentals	9.0
DRAF 2100	SolidWorks Fundamentals	9.0
DRAF 2300	Pro/ENGINEER Fundamentals	9.0
Choose one course from the following:		
DRAF 1200	Design for Precision (Measurement)	9.0
DRAF 1400	Manufacturing Processes Design	9.0
DRAF 2200	Machine Design Principles	9.0
DRAF 2400	Tool Design Processes	9.0

Computer-Aided Design (DCDSD)

Students who complete the Computer-Aided Design Specialist Diploma will be able to enhance their job-relevant skills in the workplace using CAD software. They will be able to apply CAD software in the design of cams, gears, and mechanisms and other machine components.

Requirements for Computer-Aided Design Diploma .....27.0 Credit Hrs.

Courses		Credit Hrs.
DRAF 1100	AutoCAD Fundamentals	9.0
Choose two courses from the following:		
DRAF 1200	Design for Precision (Measurement)	9.0
DRAF 1400	Manufacturing Processes Design	9.0
DRAF 2200	Machine Design Principles	9.0
DRAF 2400	Tool Design Processes	9.0

Computer-Aided Drafting (DCASD)

Students who complete the Computer-Aided Drafting Specialist Diploma will be able to enhance their job-relevant skills in the workplace using CAD software. They will be able to use 2-D and a variety of 3-D CAD solids modeling software to complete the drafting details and assemblies.

Requirements for Computer-Aided Drafting Diploma .....27.0 Credit Hrs.

Courses		Credit Hrs.
DRAF 1100	AutoCAD Fundamentals	9.0
Choose two courses from the following:		
DRAF 1300	Inventor Fundamentals	9.0
DRAF 2100	SolidWorks Fundamentals	9.0
DRAF 2300	Pro/ENGINEER Fundamentals	9.0

Plumbing Apprenticeship (ARPAO)

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

The Plumbing Apprenticeship program is for students preparing to become licensed plumbers. The courses are offered on an evening schedule only, allowing students to seek employment with plumbing contractors during the day. Students receive college credit for successful completion of coursework and at the same time completing the plumbing apprenticeship classroom hours requirement. For more information about this program, contact Lyle Hendrickson at (402) 738-4034.

GRADUATION REQUIREMENTS	
General Education	27.0
Major Requirements	12.0
Apprenticeship Classes	62.5
Total Credit Hours Required	**101.5**

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

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	Humanities/Social Sciences (see page 38)	4.5
English Level II (see page 38)	4.5	*PSYC 1000 is recommended.*	
ENGL 1220 and ENGL 1240 are recommended.			
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
Mathematics (see page 38)	4.5	HMRL 1010 Human Relations Skills	4.5
MATH 1240 is recommended.		INFO 1001 Information Systems and Literacy	4.5

Major Requirements for Plumbing Apprenticeship....12.0 Credit Hrs.

Courses		Credit Hrs.
CNST 2100	Construction Safety	4.5
FINA 1200	Wealth-Building Fundamentals	4.5
INCT 2050	Problem Solving	3.0

Apprenticeship Requirements for Plumbing Apprenticeship .....62.5 Credit Hrs.

Courses		Credit Hrs.
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 2310	Plumbing IIIA	7.0
PLAP 2320	Plumbing IIIB	7.0
PLAP 2330	Printreading for Plumbers	3.5
PLAP 2410	Plumbing IVA	7.0
PLAP 2420	Plumbing IVB	7.0

Process Operations Technology/Power Plant Operations (PROAS)

Award: Associate in Applied Science Degree
Program location: Washington County Technology Center

This degree is designed to provide 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 will be trained to operate and maintain process plants and power generating plants. Contact an advisor or counselor for details about these learning opportunities.

Sustainable Energy Technology (SETSD)

The following courses are available in Sustainable Energy Technology. New courses and program initiatives are in development. See www.mccneb.edu/snrg or speak with an advisor for updates.

Solar Energy

Students who take the following courses will learn about and work with solar electric, air, and water systems.

Courses		Credit Hrs.
SNRG 1200	Introduction to Renewable Energy	4.5
SNRG 1210	Solar Site Selection	2.0
SNRG 1220	Solar Electric Systems Design	4.5
SNRG 1230	Solar Electric Install – Overview	1.0
SNRG 1231	Solar Electric Install I – Modules	1.5
SNRG 1232	Solar Electric Install II – Grid Tie	1.5
SNRG 1233	Solar Electric Install III – Off Grid	1.5
SNRG 1240	Solar Air Systems Design	4.5
SNRG 1250	Solar Air Install – Overview	1.0
SNRG 1251	Solar Air Install I – Collectors	1.5
SNRG 1252	Solar Air Install II – Ventilation	1.5
SNRG 1253	Solar Air Install III – Blower	1.5
SNRG 1260	Solar Water Systems Design	4.5
SNRG 1270	Solar Water Install – Overview	1.0
SNRG 1271	Solar Water Install I – Panels	1.5
SNRG 1272	Solar Water Install II – Storage	1.5
SNRG 1273	Solar Water Install III – Piping	1.5
SNRG 2900	Special Topics in Solar Energy	Variable

Utility Line Technician (UTAAS)

Award: Associate in Applied Science Degree
Program location: Applied Technology Center

The Utility Line Technician 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.

GRADUATION REQUIREMENTS	
General Education	27.0
Major Requirements	61.0
Electives	8.0
Total Credit Hours Required	**96.0**

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

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	Humanities/Social Sciences (see page 38)	4.5
English Level II (see page 38)	4.5	*PSYC 1000 is recommended.*	
ENGL 1220 and 1240 are recommended.			
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
Mathematics (see page 38)	4.5	HMRL 1010 Human Relations Skills	4.5
MATH 1240 is recommended.		INFO 1001 Information Systems and Literacy	4.5

Major Requirements for Utility Line Technician.....69.0–73.5 Credit Hrs.

Courses			Credit Hrs.
UTIL	1010	Pole Climbing	4.5
UTIL	1020	Electricity I	5.5
UTIL	1030	Ropes, Rigging and Safety	4.5
UTIL	1110	Line Construction I	5.5
UTIL	1240	Underground Distribution Systems I	5.5
UTIL	2020	Transformer Theory	5.5
UTIL	2030	Secondary Electrical Systems	4.5
UTIL	2110	Line Construction II	5.5
UTIL	2210	Overhead Distribution System I	5.5
UTIL	2220	Overhead Distribution Systems II	5.5
UTIL	2230	Distribution Systems Maintenance	4.5
UTIL	2240	Underground Distribution Systems II	4.5
Students must choose 8.0 credit hours of electives from the following:			
ELTR	1200	Basic Electricity	6.5
ELTR	1210	Residential Wiring ◇	9.0
INCT	1000	Industrial Safety	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 Meter Systems	4.0
UTIL	2981	Internship	8.0

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 (CDL) in order to graduate. Training and testing for this requirement is provided by the MCC Truck Driving program, although students may acquire the CDL on their own. A 3.5 credit hour class is arranged to fit into the student's schedule.

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

◇ Additional prerequisite(s) may be required.

Continued...

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 will improve the student's chance of being accepted into the program. Students should contact Student Services to design a plan of study.

UTILITY LINE COURSEWORK – TRADITIONAL TRACK			
FIRST YEAR			
First Quarter (Fall)	**Second Quarter (Winter)**	**Third Quarter (Spring)**	**Fourth Quarter (Summer)**
UTIL 1010 4.5	UTIL 1240 5.5	UTIL 2030 4.5	Elective 8.0
UTIL 1020 5.5	UTIL 2020 5.5	UTIL 2220 5.5	8.0
UTIL 1030 4.5	UTIL 2110 5.5	UTIL 2230 4.5	
UTIL 1110 5.5	UTIL 2210 5.5	UTIL 2240 4.5	
20.0	22.0	19.0	
WEEKEND TRACK			
FIRST YEAR			
First Quarter (Spring)	**Second Quarter (Summer)**	**Third Quarter (Fall)**	**Fourth Quarter (Winter)**
UTIL 1010 4.5	UTIL 1020 5.5	UTIL 1240 5.5	UTIL 2020 5.5
UTIL 1030 5.5	UTIL 1110 4.5	UTIL 2210 5.5	UTIL 2110 5.5
10.0	10.0	11.0	11.0
SECOND YEAR			
Fifth Quarter (Spring)	**Sixth Quarter (Summer)**	**Internship**	
UTIL 2030 4.5	UTIL 2230 4.5	UTIL 2981 Internship can be taken after one year of study in the weekend option.	
UTIL 2220 5.5	UTIL 2240 4.5		
10.0	9.0		

Recent High School Graduate Track This track would allow 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 YEAR			
First Quarter (Fall)	**Second Quarter (Winter)**	**Third Quarter (Spring)**	
ELTR 1200 6.5	ELTR 1210 9.0	English Level II 4.5	
INFO 1001 4.5	English Level I 4.5	HMRL 1010 4.5	
Mathematics 4.5	Humanities/Social Science elective 4.5	INCT 1000 4.5	
15.5	18.0	13.5	

Welding Technology (WEAAS)

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

The Welding Technology program provides basic to advanced training in the major welding processes. Students who complete 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 will require students to use their welding skills, including the reading of welding blueprints, is also required. Students who graduate from the Welding Technology program will also have earned the qualification/certification of their choice, which they will own and can transfer from job to job.

GRADUATION REQUIREMENTS	
General Education	27.0
Major Requirements	70.0
Electives	11.0
Total Credit Hours Required	**108.0**

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

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	Humanities/Social Sciences (see page 38)	4.5
English Level II (see page 38)	4.5	*PSYC 1000 is recommended.*	
ENGL 1220 and ENGL 1240 are recommended.			
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
Mathematics (see page 38)	4.5	HMRL 1010 Human Relations Skills	4.5
MATH 1240 is recommended.		INFO 1001 Information Systems and Literacy	4.5

Major Requirements for Welding Technology .....70.0 Credit Hrs.

Courses		Credit Hrs.
DRAF 1100	AutoCAD Fundamentals	9.0
WELD 1000	Printreading for Welders	3.0
WELD 1100	Industrial Cutting Processes	3.0
WELD 1200	GMAW (MIG) – Steel I	3.0
WELD 1300	Oxyacetylene Welding (OAW)	3.0
WELD 1400	GTAW (TIG) – Steel I	3.0
WELD 1410	GTAW (TIG) – Stainless I	3.0
WELD 1420	GTAW (TIG) – Aluminum I	3.0
WELD 1500	SMAW (Stick) – Flat	3.0
WELD 1510	SMAW (Stick) – Vertical	3.0
WELD 1700	Introductory Fabrication	3.0
WELD 2200	GMAW (MIG) – Steel II	3.0
WELD 2220	GMAW (MIG) – Stainless	3.0
WELD 2230	GMAW (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	GTAW (TIG) – Steel II	3.0
WELD 2500	SMAW (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

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.

Continued...

Electives for Welding Technology .....11.0 Credit Hrs.

Courses		Credit Hrs.
Choose 11.0 credit hours from the following courses:		
BSAD 1000	Introduction to Business	4.5
BSAD 2610	Labor/Management Relations	4.5
ELEC 1000	Basic Electricity and Electronics	9.0
ELTR 1200	Basic Electricity	6.5
INCT 1000	Industrial Safety and Health	4.5
INCT 2070	Hydraulics and Pneumatics	3.5
WELD 2241	Flux-Cored Arc Welding II	3.0
WELD 2410	GTAW (TIG) – Stainless II	3.0
WELD 2420	GTAW (TIG) – Aluminum II	3.0
WELD 2520	SMAW (Stick) – Pipe I	3.0
WELD 2530	SMAW (Stick) – Pipe II	3.0
WELD 2540	SMAW (Stick) – Pipe III	3.0
WELD 2600	Gas-Shielded Arc Welding: Pipe	3.0
WELD 2900	Special Topics in Welding	Variable
WELD 2981	Internship	6.0

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

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

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
INFO 1001	4.5	Mathematics	4.5	HMRL 1010	4.5	English Level I	4.5
WELD 1000	3.0	WELD 2200	3.0	WELD 1500	3.0	WELD 1510	3.0
WELD 1100	3.0	WELD 2220	3.0	WELD 2240	3.0	WELD 2500	3.0
WELD 1200	3.0	WELD 2230	3.0	WELD 2242	3.0	WELD 2510	3.0
	13.5		13.5		13.5		13.5
SECOND YEAR							
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**		**Eighth Quarter**	
English Level II	4.5	DRAF 1100	9.0	Humanities/Social Science elective	4.5	WELD 2710	3.0
WELD 1300	3.0	WELD 1410	3.0	WELD 1420	3.0	WELD 2810	3.0
WELD 1400	3.0		12.0	WELD 2400	3.0	WELD 2820	1.0
WELD 1700	3.0			Electives	3.0–6.5	Electives	3.0–6.5
	13.5				13.5–17.0		10.0–13.5

Below is a suggested guide for students planning a career in welding technology after one-and-a-half years of full-time study. This plan is best implemented under the open-entry, open-exit program.

FIRST YEAR							
First Quarter		**Second Quarter**		**Third Quarter**		**Fourth Quarter**	
INFO 1001	4.5	Mathematics	4.5	HMRL 1010	4.5	English Level I	4.5
WELD 1000	3.0	WELD 2220	3.0	WELD 1500	3.0	WELD 1300	3.0
WELD 1100	3.0	WELD 2230	3.0	WELD 1510	3.0	WELD 1400	3.0
WELD 1200	3.0	WELD 2240	3.0	WELD 2500	3.0	WELD 1410	3.0
WELD 2200	3.0	WELD 2242	3.0	WELD 2510	3.0	WELD 1700	3.0
	16.5		16.5		16.5		16.5
SECOND YEAR							
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**			
DRAF 1100	9.0	English Level II	4.5	Humanities/Social Science elective	4.5		
WELD 1420	3.0	WELD 2400	3.0	WELD 2810	3.0		
Electives	1.0–6.5	WELD 2710	3.0	WELD 2820	1.0		
	13.0–18.5	Electives	1.0–6.5		8.5		
			11.5–17.0				

Welding Technology (WELCE)

Award: Certificate of Achievement
Program location: South Omaha Campus

The Welding Technology Certificate 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	33.0
Option and Elective Requirements	21.0
Total Credit Hours Required	**67.5**

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

Communications	Credit Hrs.	Humanities/Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	Humanities/Social Sciences (see page 38)	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
Mathematics (see page 38)	4.5		

Major Requirements for Welding Technology .....33.0 Credit Hrs.

Courses		Credit Hrs.
DRAF 1100	AutoCAD Fundamentals	9.0
WELD 1000	Printreading for Welders	3.0
WELD 1100	Industrial Cutting Processes	3.0
WELD 1200	GMAW (MIG) – Steel I	3.0
WELD 1400	GTAW (TIG) – Steel I	3.0
WELD 1500	SMAW (Stick) – Flat	3.0
WELD 1700	Introductory Fabrication	3.0
WELD 2200	GMAW (MIG) – Steel II	3.0
WELD 2240	Flux-Cored Arc Welding I	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	Pipe	Structural
21.0 credit hrs.	21.0 credit hrs.	21.0 credit hrs.

Welding Technology – Structural (WELSO)

Award: Certificate of Achievement
Program location: South Omaha Campus

The Structural Certificate is designed to provide 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 who complete the program are exposed to printreading with special focus on interpreting welding symbols as well as skill training in oxyfuel cutting, shielded-metal arc welding (Stick), gas metal arc welding (MIG), flux-cored arc welding (FCAW), and gas tungsten arc welding (TIG).

GRADUATION REQUIREMENTS	
General Education	13.5
Major Requirements	33.0
Option and Elective Requirements	21.0
Total Credit Hours Required	**67.5**

General Education Requirements ..... listed on page 248

Major Requirements for Welding Technology ..... listed on page 248

Option Requirements for Welding Technology – Structural.....15.0 Credit Hrs.

Courses		Credit Hrs.
WELD 1410	GTAW (TIG) – Stainless I	3.0
WELD 1510	SMAW (Stick) – Vertical	3.0
WELD 2400	GTAW (TIG) – Steel II	3.0
WELD 2500	SMAW (Stick) – Horizontal	3.0
WELD 2510	SMAW (Stick) – Overhead	3.0

Electives for Welding Technology – Structural .....6.0 Credit Hrs.

Courses		Credit Hrs.
WELD 1300	Oxyacetylene Welding (OAW)	3.0
WELD 1420	GTAW (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	GTAW (TIG) – Stainless II	3.0
WELD 2420	GTAW (TIG) – Aluminum II	3.0
WELD 2520	SMAW (Stick) – Pipe I	3.0
WELD 2530	SMAW (Stick) – Pipe II	3.0
WELD 2540	SMAW (Stick) – Pipe III	3.0
WELD 2810	Welder Pre-Qualification	3.0
WELD 2820	Welder Qualification (Certification)	1.0
WELD 2981	Internship	6.0

The certificate option is a specialization within a program. Although students may complete multiple options within this program, only the major degree is awarded.

Welding Technology – Manufacturing (WELMO)

Award: Certificate of Achievement
Program location: South Omaha Campus

The Manufacturing Certificate is designed to provide students with basic welding skills needed to work in manufacturing industries. Students who complete the program are exposed to printreading 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	33.0
Option and Elective Requirements	21.0
Total Credit Hours Required	**67.5**

General Education Requirements..... listed on page 248

Major Requirements for Welding Technology ..... listed on page 248

Option Requirements for Welding Technology – Manufacturing.....15.0 Credit Hrs.

Courses		Credit Hrs.
WELD 1410	GTAW (TIG) – Stainless I	3.0
WELD 1420	GTAW (TIG) – Aluminum I	3.0
WELD 2220	GMAW (MIG) – Stainless	3.0
WELD 2230	GMAW (MIG) – Aluminum	3.0
WELD 2400	GTAW (TIG) – Steel II	3.0

Electives for Welding Technology – Manufacturing.....6.0 Credit Hrs.

Courses		Credit Hrs.
WELD 1300	Oxyacetylene Welding (OAW)	3.0
WELD 2241	Flux-Cored Arc Welding II	3.0
WELD 2242	Submerged Arc and Metal-Cored Welding	3.0
WELD 2410	GTAW (TIG) – Stainless II	3.0
WELD 2420	GTAW (TIG) – Aluminum II	3.0
WELD 2600	Gas-Shielded Arc: Pipe	3.0
WELD 2810	Welder Pre-Qualification	3.0
WELD 2820	Welder Qualification (Certification)	1.0
WELD 2981	Internship	6.0

The certificate option is a specialization within a program. Although students may complete multiple options within this program, only the major degree is awarded.

Welding Technology – Pipe (WELPO)

Award: Certificate of Achievement
Program location: South Omaha Campus

The Pipe Certificate is designed to provide 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 printreading with special focus on interpreting welding symbols as well as skill training in oxyfuel cutting, shielded metal arc welding (stick), gas metal arc welding (MIG) of steel pipe, and flux-cored arc welding (FCAW) of plate.

GRADUATION REQUIREMENTS	
General Education	13.5
Major Requirements	33.0
Option and Elective Requirements	21.0
Total Credit Hours Required	**67.5**

General Education Requirements ..... listed on page 248

Major Requirements for Welding Technology ..... listed on page 248

Option Requirements for Welding Technology – Pipe .....15.0 Credit Hrs.

Courses		Credit Hrs.
WELD 1510	SMAW (Stick) – Vertical	3.0
WELD 2500	SMAW (Stick) – Horizontal	3.0
WELD 2510	SMAW (Stick) – Overhead	3.0
WELD 2520	SMAW (Stick) – Pipe I	3.0
WELD 2530	SMAW (Stick) – Pipe II	3.0

Electives for Welding Technology – Pipe.....6.0 Credit Hrs.

Courses		Credit Hrs.
WELD 1300	Oxyacetylene Welding (OAW)	3.0
WELD 1410	GTAW (TIG) – Stainless I	3.0
WELD 1420	GTAW (TIG) – Aluminum I	3.0
WELD 2220	GTAW (MIG) – Stainless	3.0
WELD 2230	GTAW (MIG) – Aluminum	3.0
WELD 2241	Flux-Cored Arc Welding II	3.0
WELD 2400	GTAW (TIG) – Steel II	3.0
WELD 2410	GTAW (TIG) – Stainless II	3.0
WELD 2420	GTAW (TIG) – Aluminum II	3.0
WELD 2540	SMAW (Stick) – Pipe III	3.0
WELD 2810	Welder Pre-Qualification	3.0
WELD 2820	Welder Qualification (Certification)	1.0
WELD 2981	Internship	6.0

The certificate option is a specialization within a program. Although students may complete multiple options within this program, only the major degree is awarded.

Welding Technology – Specialist Diplomas

Award: Specialist Diploma
Program location: South Omaha Campus

Gas Metal Arc Welding (GMAW) (WGMSD)

The Gas Metal Arc Welding Specialist Diploma is designed 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 oxyfuel, plasma, and air carbon arc cutting processes; safely and skillfully use gas metal arc and flux-cored arc welding equipment; produce sound fillet and groove welds in steel, stainless steel, and aluminum in all positions with gas metal arc welding using short-circuit, spray, and pulsed spray modes of metal transfer; and produce sound fillet and groove welds in steel using flux-cored arc welding.

Requirements for GMAW Diploma.....24.0 Credit Hrs.

Courses		Credit Hrs.
WELD 1000	Printreading for Welders	3.0
WELD 1100	Industrial Cutting Processes	3.0
WELD 1200	GMAW (MIG) – Steel I	3.0
WELD 2200	GMAW (MIG) – Steel II	3.0
WELD 2220	GMAW (MIG) – Stainless	3.0
WELD 2230	GMAW (MIG) – Aluminum	3.0
WELD 2240	Flux-Cored Arc Welding I	3.0
WELD 2241	Flux-Cored Arc Welding II	3.0

Gas Tungsten Arc Welding (GTAW) (WGTSD)

The Gas tungsten Arc Welding Specialist Diploma is designed for students wishing to concentrate their studies on gas tungsten arc welding (TIG) processes, procedures, and techniques. Students learn to read prints and interpret welding symbols; safely and skillfully use oxyfuel, plasma, and air carbon arc cutting processes; safely and skillfully use gas tungsten arc welding equipment; produce sound fillet and groove welds in steel, stainless steel, and aluminum in all positions in with gas tungsten arc welding; and produce sound fillet and groove welds using pulsed gas tungsten arc welding.

Requirements for GTAW Diploma.....27.0 Credit Hrs.

Courses		Credit Hrs.
WELD 1000	Printreading for Welders	3.0
WELD 1100	Industrial Cutting Processes	3.0
WELD 1300	Oxyacetylene Welding (OAW)	3.0
WELD 1400	GTAW (TIG) – Steel I	3.0
WELD 1410	GTAW (TIG) – Stainless I	3.0
WELD 1420	GTAW (TIG) – Aluminum I	3.0
WELD 2400	GTAW (TIG) – Steel II	3.0
WELD 2410	GTAW (TIG) – Stainless II	3.0
WELD 2420	GTAW (TIG) – Aluminum II	3.0

Shielded Metal Arc Welding (SMAW) (WSMSD)

The Shielded Metal Arc Welding Specialist Diploma is designed 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 oxyfuel, plasma, and air carbon arc cutting processes; safely and skillfully use shielded-metal arc welding (stick) equipment; and produce sound fillet and groove welds in steel plate and pipe using E6010 and E7018 electrodes.

Requirements for SMAW Diploma .....24.0 Credit Hrs.

Courses		Credit Hrs.
WELD 1000	Printreading for Welders	3.0
WELD 1100	Industrial Cutting Processes	3.0
WELD 1500	SMAW (Stick) – Flat	3.0
WELD 1510	SMAW (Stick) – Vertical	3.0
WELD 2500	SMAW (Stick) – Horizontal	3.0
WELD 2510	SMAW (Stick) – Overhead	3.0
WELD 2520	SMAW (Stick) – Pipe I	3.0
WELD 2530	SMAW (Stick) – Pipe II	3.0

Pipe Welding (WPWSD)

The Pipe Welding Specialist Diploma is designed 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 oxyfuel, plasma, and air carbon arc cutting processes; safely and skillfully use shielded-metal arc welding (stick) equipment; safely and skillfully use gas tungsten arc welding (TIG) equipment; produce sound fillet and groove welds in steel plate and pipe using E6010 and E7018 electrodes and steel plate using GTAW; and produce sound groove welds in pipe using GTAW.

Requirements for Pipe-Welding Diploma.....30.0 Credit Hrs.

Courses		Credit Hrs.
WELD 1000	Printreading for Welders	3.0
WELD 1100	Industrial Cutting Processes	3.0
WELD 1300	Oxyacetylene Welding (OAW)	3.0
WELD 1400	GTAW (TIG) – Steel I	3.0
WELD 1500	SMAW (Stick) – Flat	3.0
WELD 1510	SMAW (Stick) – Vertical	3.0
WELD 2400	GTAW (TIG) – Steel II	3.0
WELD 2510	SMAW (Stick) – Overhead	3.0
WELD 2520	SMAW (Stick) – Pipe I	3.0
WELD 2530	SMAW (Stick) – Pipe II	3.0

PUBLIC SERVICE

DEGREES IN THIS SECTION:

- American Sign Language Certificate
- Criminal Justice
- Early Childhood Educator
- Fire Science Technology
- Human Services
- Language Interpretation Certificate

OTHER RELATED DEGREES:

- Legal Studies (see *Business Office*)
- Liberal Arts/Academic Transfer:
  Pre-Education with Endorsements in: Art, Business, Industrial Technology, Math, Natural Science, Spanish (see *Transfer Programs*)
- General Studies – Pre-Criminal Justice (see *Transfer Programs*)

American Sign Language – Pre-Interpreter Program (SLICE)

Award: Certificate of Achievement
Program location: Fort Omaha Campus

The purpose of the Pre-Interpreter Certificate is to introduce students to American Sign Language (ASL) as well as prepare students to enter the associate degree ASL/Interpreter Preparation Program. The courses in the program explore the structure of ASL as a language and help develop an understanding of the deaf community. Students successfully completing this program will be able to transfer seamlessly into Iowa Western Community College's Sign Language Interpreting degree program. To become a practicing interpreter, more training is required beyond this certificate program.

GRADUATION REQUIREMENTS	
General Education	18.0
Major Requirements	34.5
Total Credit Hours Required	**52.5**

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

Communications		Credit Hrs.	Social Sciences		Credit Hrs.
ENGL 1010	English Composition I	4.5	PSYC 1010	Introduction to Psychology **OR**	
SPCH 1110	Public Speaking **OR**		PSYC 1120	Human Growth and Development	4.5
SPCH 1300	Interpersonal Communication	4.5			
Quantitative/Numeracy Skills		**Credit Hrs.**			
MATH 1310	Intermediate Algebra	4.5			

Major Requirements for American Sign Language – Pre-Interpreter Program .....34.5 Credit Hrs.

Courses		Credit Hrs.
SLIS 1000	Introduction to Language	4.5
SLIS 1005	Introduction to American Sign Language	4.5
SLIS 1010	American Sign Language I	6.0
SLIS 1020	American Sign Language II	6.0
SLIS 1140	Orientation to Deafness	4.5
SLIS 1150	Introduction to the Deaf World	4.5
SLIS 1170	Visual Gestural Communication	4.5

Below is a suggested guide for students planning to complete the Pre-Interpreter Certificate during one year of full-time study

FIRST YEAR							
First Quarter (Fall)		Second Quarter (Winter)		Third Quarter (Spring)		Fourth Quarter (Summer)	
SLIS 1000	4.5	ENGL 1010	4.5	MATH 1310	4.5	PSYC 1010 **OR**	
SLIS 1005	4.5	SLIS 1010	6.0	SLIS 1020	6.0	PSYC 1120	4.5
SLIS 1140	4.5	SLIS 1150	4.5	SLIS 1170	4.5	SPCH 1110 **OR**	
	13.5		15.0		15.0	SPCH 1300	4.5
							9.0

Criminal Justice (CJAAS)

Award: Associate in Applied Science Degree
Program location: South Omaha Campus, online

Individuals considering a degree or employment in the criminal justice profession must be aware of strict employment qualifications. Factors that usually disqualify candidates from employment in the profession include a criminal record (i.e., theft, assault, murder), history of drug abuse, significant psychological/personal disorders, physiological disorders, neuro-muscular dysfunction, and dishonesty. Criminal justice agencies carefully scrutinize candidates in order to select those who will maintain the public's trust and confidence at all times.

GRADUATION REQUIREMENTS

General Education	27.0
Major Requirements	45.0
Course Track Offerings	26.0– 27.0
Total Credit Hours Required	**98.0– 99.0**

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

Communications	Credit Hrs.	Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	SOCI 1010 Introduction to Sociology	4.5
English Level II (see page 38)	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
Mathematics (see page 38)	4.5	HMRL 1010 Human Relations Skills	4.5
MATH 1220 Business Math is strongly recommended.		INFO 1001 Information Systems and Literacy	4.5

Major Requirements for Criminal Justice .....45.0 Credit Hrs.

Courses		Credit Hrs.
CRIM 1010	Introduction to Criminal Justice	4.5
CRIM 1140	Reporting Techniques for Criminal Justice	4.5
CRIM 2000	Criminal Law	4.5
CRIM 2050	Principles of Interviewing and Interrogation	4.5
CRIM 2150	Contemporary Issues in Criminal Justice	4.5
CRIM 2260	Criminal Investigation	4.5
CRIM 2310	Rules of Evidence	4.5
CRIM 2330	Introduction to Forensic Crime Scene Investigation	4.5
POLS 2060	The Constitution	4.5
PSYC 1010	Introduction to Psychology	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 pages for specific additional courses required to satisfy each option.

Corrections 27.0 credit hrs.	**Generalist** 26.0 credit hrs.	*Students interested in a Criminal Justice option should consult with advisors or Student Services when planning their studies.*
Homeland Security 27.0 credit hrs.	**Law Enforcement** 27.0 credit hrs.	
Network Security and Computer Forensics 27.0 credit hrs.	**Private Security** 27.0 credit hrs.	

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 Course Track Offerings

In pursuing the Criminal Justice degree, students may select a course track from the menu of offerings listed on this page.

Criminal Justice Generalist (CJGNO) 26.0

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

Corrections (CJCNO) 27.0

CRIM	1020	Introduction to Corrections	4.5
CRIM	2010	Introduction to Probation and Parole	4.5
CRIM	2020	Legal Issues in Corrections	4.5
CRIM	2120	Community-Based Corrections	4.5
CRIM	2220	Correctional Client	4.5
CRIM	2320	Correctional Facilities	4.5

Homeland Security (CJHSO) 27.0

CRIM	2400	Introduction to Homeland Security	4.5
CRIM	2410	Homeland Security Transportation	4.5
CRIM	2420	International Crime and Terrorism	4.5
CRIM	2430	Emergency Response to Terrorism	4.5
CRIM	2440	Weapons of Mass Destruction	4.5
CRIM	2450	Global Terrorism	4.5

Law Enforcement (CJLEO) 27.0

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

Network Security and Computer Forensics (CJNSO) 27.0

INFO	2362	Web and Server Application Security	4.5
INFO	2805	Network and Information Security Basics	4.5
INFO	2806	Network Attacks, Intrusions, and Penetration Testing	4.5
INFO	2808	Boundary Protection	4.5
INFO	2809	Information Systems, Forensics, and Legal Topics	4.5
INFO	2810	Security Planning: Assessment, Analysis, and Implementation	4.5

Private Security (CJPSO) 27.0

CRIM	2500	Introduction to Private Security	4.5
CRIM	2510	Private Security Law	4.5
CRIM	2520	Loss Prevention	4.5
CRIM	2530	Commercial Security	4.5
CRIM	2540	Fire/Alarm Security	4.5
CRIM	2550	Principles of Security Safety	4.5

Criminal Justice – Specialist Diplomas

Award: Specialist Diploma
Program location: Collegewide

Community-Based Corrections (CJCD1)

The Community-Based Corrections Specialist Diploma will provide students with a background for entering the field of corrections.

Requirements for Community-Based Corrections.....27.0 Credit Hrs.

Courses		Credit Hrs.
CRIM 1010	Introduction to Criminal Justice	4.5
CRIM 1020	Introduction to Corrections	4.5
CRIM 2010	Introduction to Probation and Parole	4.5
CRIM 2020	Legal Issues in Corrections	4.5
PSYC 1010	Introduction to Psychology	4.5
SOCI 1010	Introduction to Sociology	4.5

Early Childhood Educator (ECAS1)

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

The Early Childhood Educator program prepares students for employment as a head teacher or director of childcare facilities. Learning opportunities center around curriculum planning, managing, and teaching within a childcare facility. Skills essential to working with parents and children in a variety of settings and activities are stressed.

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 an individual enrolled in practicum courses. This practice is consistent with Nebraska State Statutes.

GRADUATION REQUIREMENTS	
General Education	31.5
Major Requirements	69.0
Total Credit Hours Required	**100.5**

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

Communications	Credit Hrs.	Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	PSYC 1120 Human Growth and Development	4.5
English Level II (see page 38)	4.5	Elective	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**	**Other**	**Credit Hrs.**
MATH 1220 Business Mathematics **OR**		HMRL 1010 Human Relations Skills	4.5
MATH 1310 Intermediate Algebra	4.5	INFO 1001 Information Systems and Literacy	4.5

Major Requirements for Early Childhood Educator ...69.0 Credit Hrs.

Courses		Credit Hrs.
ECED 1050	Expressive Arts	4.5
ECED 1060	Observation, Assessment, and Guidance	4.5
ECED 1110	Infant/Toddler Development	4.5
ECED 1120	Preschool Child Development	3.0
ECED 1150	Introduction to Early Childhood Education	4.5
ECED 1160	Early Language and Literacy	4.5
ECED 1220	Prepracticum	1.5
ECED 1221	Infant/Toddler Practicum ☞	3.0
ECED 1230	School-Age Child Development	3.0
ECED 1240	Preschool-Age/School-Age Practicum ☞	3.0
ECED 1260	Children's Health and Nutrition	4.5
ECED 2050	Children with Exceptionalities	4.5
ECED 2060	Early Childhood Education Curriculum Planning	4.5
ECED 2070	Family and Community Relations	4.5
ECED 2090	Early Childhood Student Teaching Practicum ☞	6.0
ECED 2095	Current Topics in Early Childhood Education	4.5
ECED 2450	Administration of Early Childhood Education Programs	4.5

☞ *Students enrolling in practicums should visit the Early Childhood practicum website at www.mccneb.edu/ecp.*

Students who plan to transfer to a four-year institution need to see and maintain regular contact with an ECED faculty advisor.

This program is accredited through the National Association for the Education of Young Children, which means it was required to meet high standards in the preparation of Early Childhood Education employees.

Early Childhood Associate Degree naeyc ACCREDITED

Continued...

Below is a suggested guide for students planning a career in early childhood education after two years of full-time study.

FIRST YEAR						
First Quarter		**Second Quarter**		**Third Quarter**		
ECED 1060	4.5	ECED 1050	4.5	ECED 1230	3.0	
ECED 1110	4.5	ECED 1120	3.0	ECED 1240	3.0	
ECED 1150	4.5	ECED 1221	3.0	MATH 1220 **OR**		
ECED 1220	1.5	ECED 1260	4.5	MATH 1310	4.5	
ENGL 1010	4.5		15.0	PSYC 1120	4.5	
	19.5				15.0	
SECOND YEAR						
Fifth Quarter		**Sixth Quarter**		**Seventh Quarter**		
ECED 1160	4.5	ECED 2050	4.5	ECED 2070	4.5	
ECED 2060	4.5	ECED 2095	4.5	ECED 2090	6.0	
Humanities/Social		ENGL 1020	4.5	ECED 2450	4.5	
Science elective	4.5	HMRL 1010	4.5		15.0	
INFO 1001	4.5		18.0			
	18.0					

Early Childhood Educator – Assistant (ECTC1)

Award: Certificate of Achievement
Program location: Fort Omaha Campus

The Early Childhood Educator – Assistant program provides training/learning opportunities for paraprofessionals that assist head teachers in carrying out various responsibilities. These responsibilities include planning and organizing activities used in the care of young children.

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.

GRADUATION REQUIREMENTS	
General Education	13.5
Major Requirements	36.0
Total Credit Hours Required	**49.5**

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

Communications	Credit Hrs.	Social Sciences	Credit Hrs.
English Level I (see page 38)	4.5	PSYC 1120 Human Growth and Development	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
MATH 1220 Business Mathematics **OR** MATH 1310 Intermediate Algebra	4.5		

Major Requirements for Early Childhood Educator – Assistant .....36.0 Credit Hrs.

Courses		Credit Hrs.
ECED 1050	Expressive Arts	4.5
ECED 1060	Observation, Assessment, and Guidance	4.5
ECED 1110	Infant/Toddler Development	4.5
ECED 1120	Preschool Child Development	3.0
ECED 1150	Introduction to Early Childhood Education	4.5
ECED 1220	Prepracticum	1.5
ECED 1221	Infant/Toddler Practicum	3.0
ECED 1230	School-Age Child Development	3.0
ECED 1240	Preschool-Age/School-Age Practicum	3.0
ECED 1260	Children's Health and Nutrition	4.5

Students enrolling in practicums should visit the Early Childhood practicum website at www.mccneb.edu/ecp.

Below is a suggested guide for students planning a career in early childhood education after one year of full-time study.

FIRST YEAR						
First Quarter		**Second Quarter**		**Third Quarter**		
ECED 1060	4.5	ECED 1050	4.5	ECED 1230	3.0	
ECED 1110	4.5	ECED 1120	3.0	ECED 1240	3.0	
ECED 1150	4.5	ECED 1221	3.0	MATH 1220 **OR**		
ECED 1220	1.5	ECED 1260	4.5	MATH 1310	4.5	
ENGL 1010	4.5		15.0	PSYC 1120	4.5	
	19.5				15.0	

Early Childhood Education — Specialist Diplomas

Award: Specialist Diploma
Program location: Fort Omaha Campus

Early Childhood Generalist (ECGSD)

Students who wish to study specific early childhood education content and demonstrate specific skills can earn the Early Childhood Generalist Specialist Diploma by completing the following courses.

Requirements for Early Childhood Generalist.....25.5 Credit Hrs.

Courses		Credit Hrs.
ECED 1050	Expressive Arts	4.5
ECED 1060	Observation, Assessment, and Guidance*	4.5
ECED 1110	Infant/Toddler Development*	4.5
ECED 1120	Preschool Child Development*	3.0
ECED 1150	Introduction to Early Childhood Education*	4.5
ECED 1260	Children's Health and Nutrition	4.5

*Can be used to gain a CDA (Child Development Associate) credential. Other on-the-job experience would be required. For the CDA, either ECED 1110 or ECED 1120 is required in addition to ECED 1060 and ECED 1150.

Early Childhood Spanish (ECSSD)

Students who wish to study specific early childhood education content and demonstrate specific skills can earn the Early Childhood Spanish Specialist Diploma by completing the following courses. Additionally, the Spanish courses will provide an introductory background of Spanish usage in the early childhood classroom.

Requirements for Early Childhood Spanish Diploma.....26.0 Credit Hrs.

Courses		Credit Hrs.
ECED 1060	Observation, Assessment, and Guidance*	4.5
ECED 1110	Infant/Toddler Development*	4.5
ECED 1120	Preschool Child Development*	3.0
ECED 1150	Introduction to Early Childhood Education*	4.5
SPAN 0100	Introduction to the Study of Spanish	2.0
SPAN 1110	Elementary Spanish I	7.5

*Can be used to obtain a CDA (Child Development Associate) credential. Other on-the-job experience would be required. For the CDA, either ECED 1110 or ECED 1120 is required in addition to ECED 1060 and ECED 1150.

Early Childhood Sign Language (ECSLD)

Students who wish to study specific early childhood education content and demonstrate specific skills can earn the Early Childhood Sign Language Specialist Diploma by completing the following courses. Additionally, the sign language courses will give students a basic background of the usage of sign language in the early childhood classroom.

Requirements for Early Childhood Sign Language Diploma.....27.0 Credit Hrs.

Courses		Credit Hrs.
ECED 1060	Observation, Assessment, and Guidance*	4.5
ECED 1110	Infant/Toddler Development*	4.5
ECED 1120	Preschool Child Development*	3.0
ECED 1150	Introduction to Early Childhood Education*	4.5
SLIS 1150	Introduction to the Deaf World	4.5
SLIS 1010	American Sign Language I	6.0

*Can be used to gain a CDA (Child Development Associate) credential. Other on-the-job experience would be required. For the CDA, either ECED 1110 or ECED 1120 is required in addition to ECED 1060 and ECED 1150.

Early Childhood Family/Group Home Specialist (ECGHD)

Students who wish to study specific early childhood education content and demonstrate specific skills can earn the Early Childhood Family/Group Home Specialist Specialist Diploma by completing the following courses. Additionally, the Entrepreneurship courses will help to prepare students to operate their own family childcare home or a group 1/11 home.

Requirements for Early Childhood Family/Group Home Specialist Diploma.....28.5 Credit Hrs.

Courses		Credit Hrs.
ECED 1060	Observation, Assessment, and Guidance*	4.5
ECED 1110	Infant/Toddler Development*	4.5
ECED 1120	Preschool Child Development*	3.0
ECED 1230	School-Age Child Development	3.0
ENTR 1050	Introduction to Entrepreneurship	4.5
ENTR 2040	Entrepreneurship Feasibility Study	4.5
ENTR 2050	Marketing for the Entrepreneur	4.5

*Can be used to obtain a CDA (Child Development Associate) credential. Other on-the-job experience would be required. For the CDA, either ECED 1110 or ECED 1120 is required in addition to ECED 1060 and ECED 1150.

Fire Science Technology (FSAAS)

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

The Fire Science Technology program provides a unique opportunity to build professional skills and expand career possibilities. Insurance investigators and adjusters, industrial safety specialists, fire protection system designers and professionals, and volunteer firefighters will benefit from enrolling in the Fire Science Technology program.

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

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

Communications		Credit Hrs.	Other		Credit Hrs.
ENGL 1220	Technical Writing	4.5	HMRL 1010	Human Relations Skills	4.5
ENGL 1240	Oral and Written Reports	4.5	INFO 1001	Information Systems and Literacy	4.5
SPCH 1110	Public Speaking	4.5			
Quantitative/Numeracy Skills		**Credit Hrs.**			
MATH 1240	Applied Mathematics	4.5			

Major Requirements for Fire Science Technology .....80.5 Credit Hrs.

Courses		Credit Hrs.
FIST 1000	Introduction to Fire Protection Principles	3.0
FIST 1020	Chemistry and Dynamics of Fire	4.0
FIST 1040	Principles of Property and Casualty Insurance	3.0
FIST 1050	Building Construction Related to Fire Science	4.0
FIST 1060	Fire Science Professional: Health and Welfare	3.0
FIST 1070	Fire Protection Systems	3.0
FIST 1080	Hydraulics and Water Supply	4.0
FIST 1090	Firefighter I	15.0
FIST 2000	Incident Command System	4.0
FIST 2010	Incendiary Fire Analysis and Investigation	3.0
FIST 2020	Fire Prevention, Building Inspection, and Codes	4.0
FIST 2050	Municipal Fire Administration	3.0
FIST 2060	Strategy and Tactics	4.0
FIST 2070	Hazardous Materials: Operations and Chemistry	5.0
FIST 2090	Firefighter II	8.0
HLTH 1000	Cardiopulmonary Resuscitation	1.0
HLTH 1100	Emergency Medical Technician	9.5

Students in the Fire Science Technology program will also need to take Principles of Emergency Management and Leadership and Influence through the FEMA website. These are online courses and must be completed prior to graduation.

Continued...

Below is a suggested guide for students planning a career in fire protection after two years of full-time study.

FIRST YEAR							
First Quarter (Fall)		**Second Quarter (Winter)**		**Third Quarter (Spring)**		**Fourth Quarter (Summer)**	
ENGL 1220	4.5	FIST 1050	4.0	FIST 1070	3.0	ENGL 1240	4.5
FIST 1000	3.0	FIST 1060	3.0	FIST 1080	4.0	FIST 1090	15.0
FIST 1020	4.0	MATH 1240	4.5	FIST 2000	4.0	FIST 2010	3.0
INFO 1001	4.5		11.5	SPCH 1110	4.5	FIST 2070	5.0
	16.0				15.5		27.5
SECOND YEAR							
Fifth Quarter (Fall)		**Sixth Quarter (Winter)**					
FIST 1040	3.0	FIST 2050	4.0				
FIST 2020	4.0	HMRL 1010	4.5				
FIST 2060	4.0		8.5				
	11.0						

Human Services (HSAAS)*

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

The Human Services program 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 (CSHSE) accredits the Human Services program.

GRADUATION REQUIREMENTS

General Education	27.0
Major Requirements	79.0– 81.0
Total Credit Hours Required	**106.0–108.0**

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

Communications		Credit Hrs.	Social Sciences		Credit Hrs.
ENGL 1010	English Composition I*	4.5	PSYC 1010	Introduction to Psychology*	4.5
ENGL 1020	English Composition II	4.5			
Quantitative/Numeracy Skills		**Credit Hrs.**	**Other**		**Credit Hrs.**
Mathematics (see page 38)		4.5	HMRL 1010	Human Relations Skills	4.5
			INFO 1001	Information Systems and Literacy	4.5

Major Requirements for Human Services .....79.0–81.0 Credit Hrs.

Courses		Credit Hrs.
HMSV 1010	Introduction to Human Services*	4.0
HMSV 1110	Interpersonal Communication Skills*	3.5
HMSV 1120	Helping Skills/Techniques*	3.5
HMSV 1130	Introduction to Counseling Theories	3.5
HMSV 1140	Assessment, Case Planning, and Management*	3.5
HMSV 1150	Community Resources	3.5
HMSV 2050	Professional Ethics and Issues	2.0
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	2.0
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

Some courses may be taken pass/fail without tests for continuing education units (CEUs) in various professions without pursuing a degree in the program.

**The Human Services program has special admission requirements. Students should consult the Human Services program Manual. Students must apply for admission to the program after successfully completing the courses marked with an asterisk and receive approval from the Human Services Faculty Review Committee. Successful completion of all courses as stated for the first year of the program is required to be eligible to apply for participation in a practicum course.*

♥Students must submit documentation that verifies current certification in adult CPR and basic first aid before participating in practicum courses. HLTH 1010 Heartsaver First Aid with CPR and AED is offered through MCC as a 1.0 credit hour course. The Coordinator of Practicum Education completes registration in practicum courses.

Continued...

Choose one of the following suggested courses:		
ENGL 2210	Grant Writing	4.5
HMRL 1050	Leadership: Training and Skill Development	4.5
HMSV 1160	Medical and Social Aspects of Addiction	4.5
HMSV 2130	Treatment Issues in Chemical Dependency Counseling	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/ SOCI 2150	Survey of Human Sexuality	4.5
PSYC 2450/ 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	Marriage and the Family	4.5
SOCI 2311	Juvenile Justice	4.5
SPAN 1050	Spanish for Business Professionals I	4.5

It is extremely important for students in the Human Services program to take both English requirements in the first two terms of the program.

Individuals considering a degree or employment in the human services or chemical dependency fields should be aware of strict admission qualifications. Adult Protective Service and Child Protective Service checks are conducted before practicum placement is offered. The College reserves the right to share the results of any such investigation with any institution at which students intend to participate in a practicum experience. This practice is consistent with Nebraska state statutes.

Below is a suggested guide for students planning a career in human services after two years of full-time study.

FIRST YEAR							
First Quarter (Summer)		**Second Quarter (Fall)**		**Third Quarter (Winter)**		**Fourth Quarter (Spring)**	
ENGL 1010	4.5	ENGL 1020	4.5	HMRL 1010	4.5	HMSV 1130	3.5
INFO 1001	4.5	HMSV 1010	4.0	HMSV 1120	3.5	HMSV 2050	2.0
Mathematics	4.5	HMSV 1110	3.5	HMSV 1140	3.5	HMSV 2150	4.5
PSYC 1010	4.5	SOCI 1010	4.5	HMSV 1150	3.5	HMSV 2310	2.0
	18.0		16.5		15.0	PSYC 1120	4.5
							16.5
SECOND YEAR							
Fifth Quarter (Fall)		**Sixth Quarter (Winter)**		**Seventh Quarter (Spring)**			
HMSV 2110	4.5	HMSV 2120	4.5	HMSV 2993	5.0		
HMSV 2250	4.5	HMSV 2992	5.0	Other requirements	3.0–6.0		
HMSV 2450	3.0	PSYC 2350	4.5		8.0–11.0		
HMSV 2991	5.0		14.0				
	17.0						

Human Services – General (HSGCE)

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

The General Human Services Certificate provides knowledge and skills in interpersonal communication; overview of human services; helping skills/techniques; community resources; introduction to counseling theories; assessment, case planning, and management; professional ethics and issues; and crisis intervention. The certificate includes general education in English composition, mathematics, psychology, sociology, and information systems.

GRADUATION REQUIREMENTS	
General Education	27.0
Major Requirements	28.0
Total Credit Hours Required	**55.0**

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

Communications		Credit Hrs.	Social Sciences		Credit Hrs.
ENGL 1010	English Composition I	4.5	PSYC 1010	Introduction to Psychology	4.5
ENGL 1020	English Composition II	4.5	SOCI 1010	Introduction to Sociology	4.5
Quantitative/Numeracy Skills		**Credit Hrs.**	**Other**		**Credit Hrs.**
Mathematics (see page 38)		4.5	INFO 1001	Information Systems and Literacy	4.5

Major Requirements for Human Services – General..28.0 Credit Hrs.

Courses		Credit Hrs.
HMSV 1010	Introduction to Human Services	4.0
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	3.5
HMSV 1150	Community Resources	3.5
HMSV 2050	Professional Ethics and Issues	2.0
HMSV 2150	Multicultural Counseling	4.5

Human Services – Chemical Dependency Counseling (CDAAS)*

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

The Chemical Dependency Counseling program 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 will 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	79.0–81.5
Total Credit Hours Required	**106.0–108.5**

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

Communications		Credit Hrs.	Social Sciences		Credit Hrs.
ENGL 1010	English Composition I	4.5	PSYC 1010	Introduction to Psychology*	4.5
ENGL 1020	English Composition II	4.5			
Quantitative/Numeracy Skills		**Credit Hrs.**	**Other**		**Credit Hrs.**
Mathematics (see page 38)		4.5	HMRL 1010	Human Relations Skills	4.5
			INFO 1001	Information Systems and Literacy	4.5

Major Requirements for Human Services – Chemical Dependency Counseling.....79.0–81.5 Credit Hrs.

Courses		Credit Hrs.
HMSV 1110	Interpersonal Communication Skills*	3.5
HMSV 1120	Helping Skills and Techniques*	3.5
HMSV 1130	Introduction to Counseling Theories	3.5
HMSV 1140	Assessment, Case Planning, and Management*	3.5
HMSV 1160	Medical and Social Aspects of Addictions*	4.5
HMSV 2050	Professional Ethics and Issues	2.0
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	2.0
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

Continued...

Courses		Credit Hrs.
Choose one of the following suggested courses:		
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	3.5
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/ SOCI 2150	Survey of Human Sexuality	4.5
PSYC 2450/ 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	Marriage and the Family	4.5
SOCI 2311	Juvenile Justice	4.5
SPAN 1050	Spanish for Business Professionals I	6.0

☞ 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.

Some courses may be taken pass/fail without tests for continuing education units (CEUs) in various professions without pursuing a degree in the program.

**The Human Services program has special admission requirements. Students should consult the Human Services Program Manual. Students must apply for admission to the program after successfully completing the courses marked with an asterisk and receive approval by the Human Services Faculty Review Committee.*

♥ Successful completion of all courses as stated for the first year of the program is required to be eligible to apply for participation in a practicum course. Students must submit documentation that verifies current certification in adult CPR and basic first aid before participating in practicum courses. HLTH 1010 Heartsaver First Aid with CPR and AED is offered through MCC as a 1.0 credit hour course. The Coordinator of Practicum Education completes registration in practicum courses and practicum seminars.

Individuals considering a degree or employment in the human services or chemical dependency fields should be aware of strict admission qualifications. Adult Protective Service and Child Protective Service checks are conducted before practicum placement is offered. The College reserves the right to share the results of any such investigation with any institution at which students intend to participate in a practicum experience. This practice is consistent with Nebraska state statutes.

It is extremely important for students in the Chemical Dependency program to take both English requirements in the first two terms of the program.

Below is a suggested guide for students planning a career in chemical dependency after two years of full-time study.

FIRST YEAR							
First Quarter (Summer)		**Second Quarter (Fall)**		**Third Quarter (Winter)**		**Fourth Quarter (Spring)**	
ENGL 1010	4.5	ENGL 1020	4.5	HMRL 1010	4.5	HMSV 1130	3.5
INFO 1001	4.5	HMSV 1110	3.5	HMSV 1120	3.5	HMSV 2050	2.0
Mathematics	4.5	HMSV 1160	4.5	HMSV 1140	3.5	HMSV 2110	4.5
PSYC 1010	4.5	PSYC 1120	4.5	HMSV 2310	2.0	HMSV 2130	4.0
	18.0		17.0	SOCI 1010	4.5	HMSV 2150	4.5
					18.0		18.5
SECOND YEAR							
Fifth Quarter (Fall)		**Sixth Quarter (Winter)**		**Seventh Quarter (Spring)**			
HMSV 2160	4.5	HMSV 2140	4.0	HMSV 2996	5.0		
HMSV 2450	4.5	HMSV 2995	5.0	Other requirements	3.0–7.5		
HMSV 2994	5.0	PSYC 2350	4.5		8.0–12.5		
	14.0		13.5				

Human Services – Chemical Dependency (CDCCE)

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

The Chemical Dependency Certificate provides knowledge and skills in medical and social aspects of addiction; treatment issues in addictions; interpersonal communication; helping skills and techniques; introduction to counseling; assessment, case planning, and management; professional ethics and issues; and crisis intervention. The certificate includes general education in English composition, mathematics, psychology, sociology, and information systems.

GRADUATION REQUIREMENTS	
General Education	27.0
Major Requirements	28.0
Total Credit Hours Required	**55.0**

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

Communications		Credit Hrs.	Social Sciences		Credit Hrs.
ENGL 1010	English Composition I	4.5	PSYC 1010	Introduction to Psychology	4.5
ENGL 1020	English Composition II	4.5	SOCI 1010	Introduction to Sociology	4.5
Quantitative/Numeracy Skills		**Credit Hrs.**	**Other**		**Credit Hrs.**
Mathematics (see page 38)		4.5	INFO 1001	Information Systems and Literacy	4.5

Major Requirements for Human Services – Chemical Dependency .....28.0 Credit Hrs.

Courses		Credit Hrs.
HMSV 1110	Interpersonal Communication Skills	3.5
HMSV 1120	Helping Skills and Techniques	3.5
HMSV 1130	Introduction to Counseling Theories	3.5
HMSV 1140	Assessment, Case Planning, and Management	3.5
HMSV 1160	Medical and Social Aspects of Addiction	4.5
HMSV 2050	Professional Ethics and Issues	2.0
HMSV 2130	Treatment Issues in Chemical Dependency	4.5
HMSV 2450	Crisis Intervention	3.0

Language Interpretation (LGICE)

Award: Certificate of Achievement
Program location: online

This program 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.

GRADUATION REQUIREMENTS	
General Education	18.0
Major Requirements	34.5
Total Credit Hours Required	**52.5**

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

Communications	Credit Hrs.	Social Sciences	Credit Hrs.
ENGL 1010 English Composition I	4.5	Social Sciences (see page 38)	4.5
Quantitative/Numeracy Skills	**Credit Hrs.**		
MATH 1220 Business Mathematics	4.5		

Major Requirements for Language Interpretation .....36.0 Credit Hrs.

Courses		Credit Hrs.
Initial Course Sequence (students must take all courses)		
LANG 1110	Introduction to Interpreting	4.5
LANG 1120	Interpreting Ethics	4.5
LANG 1130	Emphasis Seminar	4.5
Specialty Course Sequences (students must complete one area of specialization and the special topics course)		
Community Specialization		
LANG 2110	Fundamentals of Community Interpreting	4.5
LANG 2120	Community Interpreting – Terminology and Sight Translation	4.5
LANG 2130	Consecutive Interpretation – Community	4.5
LANG 2140	Simultaneous Interpretation – Community	4.5
Legal Specialization		
LANG 2210	Fundamentals of Legal Interpreting	4.5
LANG 2220	Legal Terminology and Sight Translation	4.5
LANG 2230	Consecutive Interpretation – Legal	4.5
LANG 2240	Simultaneous Interpretation – Legal	4.5
Medical Specialization		
LANG 2310	Fundamentals of Medical Interpreting	4.5
LANG 2320	Medical Terminology and Sight Translation	4.5
LANG 2330	Consecutive Interpretation – Medical	4.5
LANG 2340	Simultaneous Interpretation – Medical	4.5
LANG 2900	Special Topics in Language Interpretation	4.5

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)		**Second Quarter (Winter)**		**Third Quarter (Spring)**		**Fourth Quarter (Summer)**	
ENGL 1010	4.5	LANG 1120	6.0	Speciality course	4.5	LANG 2900	4.5
LANG 1110	4.5	LANG 1130	4.5	Speciality course	4.5	Specialty course	4.5
MATH 1220	4.5	Social Science elective	4.5		9.0	Specialty course	4.5
	13.5		15.0				13.5

TRANSFER PROGRAMS

TRANSFER AGREEMENTS

MCC provides many options to students who desire to transfer community college credit to four-year colleges and universities. Articulation agreements take the guesswork out of credit transfer. MCC has many Associate-to-Bachelor (A-to-B) agreements with area four-year institutions. These agreements allow 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 MCC's website at www.mccneb.edu/articulation for more information about theses transfer courses or A-to-B agreements.

DEGREES IN THIS SECTION:

- General Studies
- Liberal Arts/Academic Transfer (Associate in Arts)
- Liberal Arts/Academic Transfer (Associate in Science)
- Liberal Arts/Academic Transfer – Humanities/Social Sciences (Certificate)
- Liberal Arts/Academic Transfer – Math/Science (Certificate)
- Liberal Arts/Academic Transfer (Spanish)

OTHER RELATED DEGREES:

- Arts (see *Arts*)
- Business Transfer (see *Business/Office*)
- Computer Technology Transfer (see *Computing/Electronics*)
- Culinary Arts and Management (see *Culinary/Horticulture*)
- Electronic Imaging and Media Arts (see *Arts*)

MCC Transfer Agreements

Alegent Health
Program Guides

Bellevue University
A-to-B Agreements

Buena Vista University
A-to-B Agreements

Chadron State College
A-to-B Agreements
General Education Agreements

Clarkson College
A-to-B Agreements
General Education Agreements

College of Saint Mary
A-to-B Agreements
General Education Agreements

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

National American University
A-to-B Agreements
Program Guides

Nebraska Methodist College
A-to-B Agreements
General Education Agreements

Nebraska Wesleyan University
A-to-B Agreements

Northwest Missouri State University
A-to-B Agreements

Palmer College of Chiropractic
Program Guides

Peru State College
A-to-B Agreements
General Education Agreements

University of Iowa
Course-by-Course Agreements

University of Kansas
Course-by-Course Agreements

University of Nebraska–Kearney
General Education Agreements

University of Nebraska-Lincoln
A-to-B Agreements
General Education Agreements

University of Nebraska Medical Center
A-to-B Agreements
Program Guides

University of Nebraska–Omaha
A-to-B Agreements
General Education Agreements

University of Phoenix
A-to-B Agreements

Wayne State College
A-to-B Agreements
General Education Agreements

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

Transfer Tips

- The two most important decisions transfer students must make are which four-year institution to attend and which bachelor's degree to work toward.
- Potential transfer students should work with an Academic Advisor from MCC and from the four-year institution they plan to attend to ensure a smooth transfer.
- Successful transfer of credit depends upon the major declared at the four-year institution. For example, courses that may successfully transfer into a psychology major may not transfer into an accounting major.
- The college or university receiving transfer courses makes the decision regarding award of transfer credit. Acceptance of credit is always up to the receiving institution.
- MCC courses that transfer as electives may or may not actually count 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 Ds or Fs are earned are not usually transferable.
- Pass/Fail credits may or may not transfer.
- Virtually all four-year colleges have minimum residency requirements. For instance, the University of Nebraska–Lincoln requires that 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 will not be calculated into the GPA at the four-year institution. Some institutions do look at the MCC GPA to determine graduating with honors. Grades earned at MCC will not replace a poor (D, F) grade already earned at the four-year institution.
- Quarter hours earned at MCC convert to semester hours at a ratio of 3.0 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 will determine what transfers on a course-by-course basis.

What if I decide to change to a different four-year school?

Although most four-year institutions have degree programs that will accept 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 will meet this maximum. Students should work with an advisor or counselor from both MCC and the four-year institution to determine whether additional courses will transfer.

Is there a time limit to complete an articulation agreement?

If there is a time limit, it is listed on the agreement document. Although transferring to a four-year institution immediately after graduation is not required, it is desirable. Degree plans and course requirements change, which can result in a loss of credit. It is best to transfer as soon as possible to maximize the transfer of credit.

How often do the articulation agreements change?

Agreements are reviewed annually with the publication of MCC's new catalog. MCC and the four-year institutions work closely throughout the year to keep up with program changes. Working with an advisor or counselor from both MCC and the four-year institution will keep students on the appropriate educational and career path 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 will 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 transcript will need to be sent to the four-year institution. Transcript requests can be completed online at www.mccneb.edu, in person at Student Services, or through the mail. Mail-in requests can be mailed to Metropolitan Community College, Attn: Records, P.O. Box 3777, Omaha, NE 68103-0777 and should include the student's name (maiden), date of birth, social security number or MCC ID number, signature, current address, current phone number, and address of institution receiving transcript.

OPTIONS

QUANTITATIVE/NUMERACY SKILLS

MATH 1410	Statistics	4.5
MATH 1420	College Algebra	5.0
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	Database Management	4.5
INFO 2537	Data Structures	4.5
INFO 2630	Structured Query Language (SQL)	4.5

CULTURAL STUDIES

ENGL 2470	Introduction to Women's Literature	4.5
ENGL 2490	Introduction to Latin American Literature	4.5
ENGL 2530	Ethnic Literature	4.5
ENGL 2900	African-American Literature	4.5
GEOG 1050	Introduction to Human Geography	4.5
HIST 1050	Introduction to Black History	4.5
HIST 1060	History of Black Women in America	4.5
HIST 1110	World Civilization to 1500	4.5
HIST 1120	World Civilization from 1500	4.5
HIST 2200	Latin American History	4.5
HUMS 1110	Origins of the Humanities	4.5
HUMS 1140	Multi-Cultural Humanities I	4.5
HUMS 1150	Multi-Cultural Humanities II	4.5
SLIS 1150	Introduction to the Deaf World	4.5
SOCI 1100	Native American Studies	4.5
SOCI 1250	Introduction to Anthropology	4.5
SOCI 2060	Multicultural Issues	4.5

HUMANITIES

ARTS 1000	Introduction to Visual Arts	4.5
ARTS 1010	Drawing and 2-D Design I	4.5
ARTS 1020	Drawing and 2-D Design II	4.5
ARTS 1110	Art History – Ancient to Gothic	4.5
ARTS 1120	Art History – Renaissance to Modern	4.5
ENGL 1310	Creative Writing	4.5
ENGL 2450	Introduction to Literature	4.5
ENGL 2460	Introduction to Short Stories	4.5
ENGL 2470	Introduction to Women's Literature	4.5
ENGL 2480	Introduction to Dramatic Literature I	4.5
ENGL 2481	Introduction to Dramatic Literature II	4.5
ENGL 2490	Introduction to Latin American Literature	4.5
ENGL 2510	American Literature I	4.5
ENGL 2520	American Literature II	4.5
ENGL 2530	Ethnic Literature	4.5
ENGL 2610	British Literature I	4.5

Continued on next page.

SOCIAL SCIENCES

ECON 1000	Macroeconomics	4.5
ECON 1100	Microeconomics	4.5
GEOG 1010	Fundamentals of Geography	4.5
GEOG 1050	Introduction to Human Geography	4.5
GEOG 2150	World Regional Geography	4.5
HIST 1010	U.S. History to 1877	4.5
HIST 1020	U.S. History from 1865	4.5
HIST 1050	Introduction to Black History	4.5
HIST 1060	History of Black Women in America	4.5
HIST 1070	Traditional and Modern China	4.5
HIST 1110	World Civilization I	4.5
HIST 1120	World Civilization II	4.5
HIST 2050	Modern Europe Since 1815	4.5
HIST 2200	Latin American History	4.5
HIST 2220	U.S. Military	4.5
POLS 2050	American National Government	4.5
POLS 2060	The Constitution	4.5
POLS 2070	Contemporary Social and Political Issues	4.5
PSYC 1010	Introduction to Psychology	4.5
PSYC 1120	Human Growth and Development	4.5
PSYC 1130	Cognitive Development	4.5
PSYC 2150/ SOCI 2150	Survey of Human Sexuality	4.5
PSYC 2350	Fundamentals of Abnormal Psychology	4.5
PSYC 2450/ SOCI 2450	Social Psychology	4.5
SOCI 1010	Introduction to Sociology	4.5
SOCI 1050	Sociology of Healthcare	4.5
SOCI 1100	Native American Studies	4.5
SOCI 1250	Introduction to Anthropology	4.5
SOCI 2050	Current Social Problems	4.5
SOCI 2060	Multicultural Issues	4.5
SOCI 2110	Introduction to Gerontology	4.5
SOCI 2160	Marriage and the Family	4.5
SOCI 2310	Criminology	4.5
SOCI 2311	Juvenile Justice	4.5

NATURAL SCIENCES

BIOS 1010	Introduction to Biology	6.0
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 1410	Biology of the Lower Plants	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 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

Continued on next page.

HUMANITIES		
ENGL 2620	British Literature II	4.5
ENGL 2900	Special Topics in Literature	4.5
ENGL 2901	Special Topics in Writing	4.5
FREN 1010	Beginning French I	7.5
FREN 1020	Beginning French II	7.5
FREN 2010	Intermediate French I	4.5
FREN 2020	Intermediate French II	4.5
GERM 1010	Elementary German I	7.5
GERM 1020	Elementary German II	7.5
HUMS 1000	The Art of Being Human	4.5
HUMS 1100	Classical Humanities	4.5
HUMS 1110	Origins of the Humanities ☞	4.5
HUMS 1120	Western Tradition I ☞	4.5
HUMS 1130	Western Tradition II	4.5
HUMS 1140	Multi-Cultural Humanities I ☞	4.5
HUMS 1150	Multi-Cultural Humanities II ☞	4.5
HUMS 2310	Film History and Appreciation	4.5
JAPN 1010	Beginning Japanese I	7.5
JAPN 1020	Beginning Japanese II	7.5
JAPN 2010	Intermediate Japanese I	4.5
JAPN 2020	Intermediate Japanese II	4.5
JAPN 2030	Intermediate Japanese III	4.5
JAPN 2040	Intermediate Japanese IV	4.5
MUSC 1010	Introduction to Music I	4.5
MUSC 1020	Introduction to Music II	4.5
MUSC 1050	Music Appreciation	4.5
MUSC 1110	Music Fundamentals I	4.5
MUSC 1120	Music Fundamentals II	4.5
PHIL 1010	Introduction to Philosophy	4.5
PHIL 1030	Professional Ethics	4.5
PHIL 1100	Critical Reasoning	4.5
PHIL 2030	Introduction to Ethics	4.5
PHIL 2200	Introduction to Comparative Religion	4.5
PHIL 2400	Philosophy and Literature	4.5
PHIL 2600	Contemporary Issues in Philosophy	4.5
SLIS 1010	American Sign Language I	6.0
SLIS 1020	American Sign Language II	6.0
SPAN 1110	Elementary Spanish I	7.5
SPAN 1120	Elementary Spanish II	7.5
SPAN 2110	Intermediate Spanish I	4.5
SPAN 2120	Intermediate Spanish II	4.5
SPCH 1220	Communication in Small Groups	4.5
SPCH 1300	Interpersonal Communication	4.5
THEA 1000	Introduction to the Theatre	4.5
THEA 2010	Script Analysis	4.5
THEA 2020	Fundamentals of Acting I	4.5
THEA 2021	Fundamentals of Acting II	4.5
THEA 2030	Playwriting I	4.5
THEA 2031	Playwriting II	4.5
THEA 2110	Theatre History I	4.5
THEA 2120	Theatre History II	4.5
THEA 2480	Introduction to Dramatic Literature I	4.5
THEA 2481	Introduction to Dramatic Literature II	4.5

☞Course can only be used to satisfy one requirement.

NATURAL SCIENCES		
CHEM 1212	General Chemistry 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 Lab	1.5

*Organic Chemistry, Principles of Physics, and General Physics are taught as a three course sequence. All three courses must be successfully completed to transfer as a semester-length course.

**Entire sequence should be taken.

Students interested in any of the transfer courses and degrees should work with an Academic Advisor from MCC and from the school you wish to transfer to in order to select the best course transfer options.

Academic Transfer (LATAA)

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

This associate in arts 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, for general education, and for major concentration areas. Students should consult the catalog of the transfer institution of their choice. This degree can be completed online by selecting courses with the online course designation.

GRADUATION REQUIREMENTS	
General Education	27.0
Major Requirements	69.0
Total Credit Hours Required	**96.0**

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

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

Students should select courses from each of the following categories to meet the required credit hours. 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 choose courses that will best meet their transfer needs.

Major Requirements for Liberal Arts/Academic Transfer.....69.0 Credit Hrs.

Quantitative/Numeracy Skills	Social Sciences
Choose 4.5 credit hours from the Mathematics courses listed on page 279.	**Choose 9.0–27.0 credit hours from the Social Sciences courses listed on page 279.**
Natural Sciences	**Humanities**
Choose 12.0 credit hours from the Natural Sciences courses listed on pages 279–280. At least one course should include a lab.	**Choose 9.0–27.0 credit hours from the Humanities courses listed on pages 279–280.**
Cultural Studies	**Electives**
Choose 4.5 credit hours from the Cultural Studies courses listed on pages 279.	**Choose 12.0 credit hours.** Elective credits may be chosen from courses throughout the catalog, but students are strongly advised to consult with the four-year college to which they plans to transfer as to the appropriateness of choosing particular courses. The degree plan that will be followed at a four-year institution should also be followed where possible in choosing elective courses at MCC. In general, students may rely on the courses within the above categories when choosing elective courses.

Catalogs and additional transfer information are available in Student Services or by visiting the articulation website at www.mccneb.edu/articulation. Counselors and advisors are available to provide assistance with the selection of MCC courses that transfer to area four-year institutions.

Associate in Arts: Associate-to-Bachelors (A-to-B) Degrees

Listed below are associate in arts degree transfer agreements developed with specific courses that transfer to a four-year institution. These are special agreements with the four-year institutions, and all courses should be completed for maximum transfer. Completing an A-to-B Agreement does not guarantee admission into the four-year school.

Visit MCC's website at www.mccneb.edu/articulation for complete course listings and requirements.

Associate in Arts Transfer Agreements	Four-Year Institution
Library Science Education (LSEAA)*	University of Nebraska–Omaha
Pre-Art Education (PSAE1)	University of Nebraska–Omaha
Teacher Preparation:	
Early Childhood Education (ECPCA)	Chadron State
Early Childhood Education (ECPPA)	Peru State
Early Childhood Education (ECPKA)	University of Nebraska–Kearney
Early Childhood Education (ECPLA)	University of Nebraska–Lincoln
Early Childhood Education (ECPWA)	Wayne State College

Early childhood educators who are considering opening their own center are encouraged to take ENTR 1050 Introduction to Entrepreneurship. A leading cause of failure of new business endeavors is the lack of advance planning.

Social Science Transfer Agreements

Required and recommended courses and course sequences are in place for Liberal Arts/Academic Transfer students wanting to major in history, political science, psychology, sociology, or secondarily in anthropology, geography, or education (with concentration in one of the above areas). Students should consult the Social Science program brochure and the Transfer Guides for department-specific information. Education majors should also see information about the TE@M program (Teacher Education at Metro) agreement with the University of Nebraska–Omaha at www.mccneb.edu/team. Working closely with a counselor is highly recommended.

*The Associate of Arts degree in Library Science Education is now available in Nebraska through a partnership of the Nebraska Community College System. All Library courses will need to be completed online through Central Community College in Grand Island. Library courses will transfer to MCC and UNO. For details, contact Gretchen Schaeffer, Academic Adviser, (402) 457-2376.

Liberal Arts/Academic Transfer – Humanities/Social Sciences (LHSCE)

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

The Transfer Studies Certificate with Humanities/Social Science emphasis provides students in pursuit of a baccalaureate degree with the proper coursework, transferable credits, and level of accomplishment to successfully transfer to a four year-college/university.

GRADUATION REQUIREMENTS

General Education	22.5–25.5
Major Requirements	24.0–25.5
Total Credit Hours Required	**46.5–51.0**

TRANSFER PROGRAMS

General Educational Requirements..... 22.5–25.5 Credit Hrs.

Communications	Credit Hrs.	Social Sciences	Credit Hrs.
Select two courses from the following:		**Select two courses from the Social Sciences courses listed on page 279.**	
ENGL 1010 English Composition I	4.5		
ENGL 1020 English Composition II	4.5		
ENGL 1220 Technical Writing	4.5		
ENGL 1230 Business Writing	4.5		
ENGL 1240 Oral and Written Reports	4.5		
SPCH 1110 Public Speaking	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**		
MATH 1310 Intermediate Algebra **OR** any higher level MATH course	4.5–7.5		

Major Requirements for Humanities/Social Sciences Transfer Studies...24.0–25.5 Credit Hrs.

Humanities	Credit Hrs.	Natural Sciences/Mathematics	Credit Hrs.
Select a minimum of 9.0 credit hours from the Humanities courses listed on pages 279–280.		**Select a minimum of 4.5 credit hours from the Natural Sciences/Mathematics courses listed on pages 279–280.**	
Electives	**Credit Hrs.**		
Choose from 10.5–12.0 credit hours from the Natural Sciences/Mathematics category. Elective credits may be chosen from courses throughout the catalog, but students are strongly advised to consult with the four-year college to which they plans to transfer as to the appropriateness of choosing particular courses.			

Liberal Arts/Academic Transfer – Spanish (LTSAA)

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

The Associate in Arts in Spanish strengthens foundation skills, provides a broad understanding, and develops thinking skills. It also gives students a solid knowledge of Spanish language and culture. Students who successfully complete this degree can go on to major in Spanish or international studies at a baccalaureate institution. This program also prepares students to better communicate with Spanish-speaking clients and friends in work and social situations.

GRADUATION REQUIREMENTS	
General Education	27.0
Major Requirements	69.5
Total Credit Hours Required	**96.5**

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

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

Major Requirements for Liberal Arts/Academic Transfer – Spanish.....69.5 Credit Hrs.

Humanities		Credit Hrs.	Social Sciences		Credit Hrs.
SPAN 1110	Elementary Spanish I	7.5	**Choose 9.0 credit hours from the Social Sciences courses listed on page 279.**		
SPAN 1120	Elementary Spanish II	7.5			
SPAN 2110	Intermediate Spanish I	4.5			
SPAN 2120	Intermediate Spanish II	4.5			
SPAN 2210	Conversation Skills I	4.5			
Quantitative/Numeracy Skills		**Credit Hrs.**	**Cultural Studies**		**Credit Hrs.**
Choose 4.5 credit hours from the Mathematics courses listed on page 279.			**Choose 4.5 credit hours from the Cultural Studies courses listed on pages 279.**		
Natural Sciences		**Credit Hrs.**	**Electives**		**Credit Hrs.**
Choose 12.0 credit hours from the Natural Sciences courses listed on pages 279–280.			**Choose 11.0 credit hours from the following:**		
			SPAN 1810	Study Spanish Abroad	Variable
			SPAN 1900	Special Topics in Spanish I	Variable
			SPAN 2050	Intermediate Business Spanish I	4.5
			SPAN 2051	Intermediate Business Spanish II	4.5
			SPAN 2060	Intermediate Medical Spanish I	4.5
			SPAN 2061	Intermediate Medical Spanish II	4.5
			SPAN 2220	Conversation Skills II	4.5
			SPAN 2490	Introduction to Latin America Literature	4.5
			SPAN 2900	Special Topics in Spanish II	Variable

Spanish – Specialist Diploma

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

Spanish for Medical Professionals (SMPSD)

Students who wish to study Spanish to better communicate with medical patients or clients can earn the Spanish for Medical Professionals Specialist Diploma by completing the following courses. It will provide the basic knowledge to hold beginning to intermediate conversations with Spanish-speaking persons.

Requirements for Spanish for Medical Professionals Diploma.....24.0 Credit Hrs.

Courses		Credit Hrs.
SPAN 1060	Spanish for Medical Personnel I	4.5
SPAN 1061	Spanish for Medical Personnel II	4.5
SPAN 2060	Intermediate Spanish for Medical Personnel I	4.5
SPAN 2061	Intermediate Spanish for Medical Personnel II	4.5
SPAN 2982	Spanish for Medical Personnel Internship	Variable

Spanish for Business Professionals (SBPSD)

Speaking and understanding Spanish is a valuable skill in today's business world. Students who wish to better communicate with Hispanic business clients can do so by completing the Spanish for Business Professionals Specialist Diploma. It will prepare them to hold beginning to intermediate conversations with Spanish-speaking persons.

Requirements for Spanish for Business Professionals Diploma.....27.0 Credit Hrs.

Courses		Credit Hrs.
SPAN 1050	Spanish for Business Professionals I	4.5
SPAN 1051	Spanish for Business Professionals II	4.5
SPAN 2050	Intermediate Spanish for Business Professionals I	4.5
SPAN 2051	Intermediate Spanish for Business Professionals II	4.5
SPAN 2110	Intermediate Spanish I	4.5
SPAN 2120	Intermediate Spanish II	4.5

Liberal Arts/Academic Transfer (LATAS)

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

This associate in science 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 will be able to transfer into a baccalaureate degree program at a four-year college upon completion of the associate degree. Each transfer institution publishes requirements for admission, for general education, and for major concentration areas. Students should consult the catalogs of the transfer institution of their choice.

GRADUATION REQUIREMENTS	
General Education	27.0
Major Requirements	69.0
Total Credit Hours Required	**96.0**

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

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

Students should select courses from each of the following categories to meet the required credit hours. Students should consult with an advisor or counselor to choose courses that will best meet their transfer needs.

Major Requirements for Liberal Arts/Academic Transfer.....69.0 Credit Hrs.

Quantitative/Numeracy Skills/ Computer Sciences	Credit Hrs.	Social Sciences	Credit Hrs.
Choose 4.5 credit hours from the Mathematics courses listed on page 279.		**Choose 9.0 credit hours from the Social Sciences courses listed on page 279.**	
Humanities	**Credit Hrs.**	**Natural Sciences/Quantitative/ Numeracy Skills**	**Credit Hrs.**
Choose 4.5 credit hours from the Humanities courses listed on pages 279–280.		**Choose 28.5 credit hours from the Natural Sciences/ Mathematics courses listed on pages 279–280.** 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	**Credit Hrs.**	**Electives**	**Credit Hrs.**
Choose 4.5 credits from the Cultural Studies courses listed on page 279.		**Choose 18.0 credit hours.** Elective credits may be chosen from courses throughout the catalog, but students are strongly advised to consult with the colleges to which they plan to transfer as to the appropriateness of particular courses. The degree plan that will be followed at a four-year institution should also be followed where possible in choosing elective courses at MCC. In general, students may rely on the courses within the above categories when choosing elective courses.	
Catalogs and additional transfer information are available in Student Services. Counselors and advisors are available to provide assistance with the selection of MCC courses that transfer to area four-year institutions.			

Associate in Science: Associate-to-Bachelors (A-to-B) Transfer Degrees

Listed below are associate in science degree transfer agreements developed with specific courses that transfer to a four-year institution. These are special agreements with the four-year institutions, and all courses should be completed for maximum transfer. Completing an A-to-B Agreement does not guarantee admission into the four-year school.

Visit MCC's website at www.mccneb.edu/articulation for complete course listings and the requirements.

Associate in Science Transfer Agreements	Four-Year Institution
Pre-Agricultural Sciences (LAGAS)	University of Nebraska–Lincoln
Pre-Biology (LABAS)	University of Nebraska–Omaha
Pre-BioTechnology (LBTAS)	University of Nebraska–Omaha
Pre-Chemistry (LACAS)	University of Nebraska–Omaha
Pre-Clinical Laboratory Science (PSMT2)	University of Nebraska–Omaha University of Nebraska Medical Center
Pre-Dietetics (LADTO)	University of Nebraska–Lincoln
Pre-Engineering Pre-Architectural Engineering (PEARO) Pre-Civil Engineering (PECVO) Pre-Computer Engineering (PECPO) Pre-Construction Engineering Technology (PECTO) Pre-Construction – Management (PECMO) Pre-Electronic Engineering (PEELO)	University of Nebraska–Omaha/Kiewit Institute
Pre-Math (LAMAS)	University of Nebraska–Omaha
Pre-Medicine (LAPMO)	University of Nebraska Medical Center
Pre-Nursing (LASNO)	University of Nebraska Medical Center
Pre-Physics (LAPAS)	University of Nebraska–Omaha
Teacher Preparation Pre-Secondary Education Math Endorsement (LAEMO) Natural Science Endorsement (LANSO) Language Arts Endorsement (LALAO) Social Sciences Endorsement (LASSO) Pre-Deaf or Hard of Hearing Endorsement (LAPDO)	University of Nebraska–Omaha
Pre-Veterinarian (PVAS1)	University of Nebraska–Lincoln/Iowa State University
Certificate Agreements	**Four-Year Institution**
Pre-Elementary Education (LEECE)	University of Nebraska–Omaha

Liberal Arts/Academic Transfer – Math/Science (LMSCE)

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

The Transfer Studies Certificate with Math/Science emphasis provides students in pursuit of a baccalaureate degree in those fields the proper coursework, transferable credits, and level of accomplishment to successfully transfer to a four-year college/university.

GRADUATION REQUIREMENTS

General Education	18.0–21.0
Major Requirements	30.0
Total Credit Hours Required	**48.0–51.0**

General Education Requirements ..... 18.0–21.0 Credit Hrs.

Communications	Credit Hrs.	Social Sciences	Credit Hrs.
English Level I	4.5	**Select one course from the Social Sciences courses listed on page 279.**	
English Level II	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**		
MATH 1310 Intermediate Algebra **OR** any higher level MATH course	4.5– 7.5		

Major Requirements for Math/Science Transfer Studies .....30.0 Credit Hrs.

Humanities	Credit Hrs.	Natural Sciences	Credit Hrs.
Select one course from the Humanities courses listed on pages 279–280.		**Select one course from the Natural Sciences courses listed on pages 279–280.**	
Electives	**Credit Hrs.**	**Quantitative/Numeracy Skills**	**Credit Hrs.**
Remaining elective credits may be chosen from courses throughout the catalog, but students are strongly advised to consult with the four-year college which they plans to transfer as to the appropriateness of choosing particular courses.		**Select one course from the Quantitative/Numeracy Skills courses listed on page 279.**	

General Studies (GSAAS)

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

The General Studies degree focuses on career areas as well as general education. It offers students an associate degree program that allows some latitude in selection of courses in areas of interest. Students should work with an advisor or counselor in planning the coursework for this degree.

GRADUATION REQUIREMENTS	
General Education	42.0–45.0
Major Requirements	36.0
Electives	18.0
Total Credit Hours Required	**96.0–99.0**

TRANSFER PROGRAMS

General Education Requirements ..... 42.0 Credit Hrs.

Communications	Credit Hrs.	Social Sciences	Credit Hrs.
ENGL 1010 English Composition I	4.5	Social Sciences (see page 38)	4.5
ENGL 1020 English Composition II	4.5		
SPCH 1110 Public Speaking	4.5		
Quantitative/Numeracy Skills	**Credit Hrs.**	**Natural Sciences**	**Credit Hrs.**
Mathematics (see page 38)	4.5– 7.5*	Natural Sciences (see page 38)	6.0
Humanities	**Credit Hrs.**	**Other**	**Credit Hrs.**
Humanities (see page 38)	4.5	HMRL 1010 Human Relations Skills	4.5
		INFO 1001 Information Systems and Literacy	4.5

*Only students who have completed the Professional Skills Specialist Diploma will need to complete the 7.5 credit hour Mathematics requirement.

Major Requirements for General Studies .....36.0 Credit Hrs.

Courses	Credit Hrs.
Complete a minimum of 36.0 credit hours of courses, selecting from a maximum of two prefixes.☞	

Electives for General Studies .....18.0 Credit Hrs.

Courses	Credit Hrs.
Choose 18.0 credit hours.	

General Studies Degree Options

Listed below are General Studies degree options that allow students to tailor a specific interest into an associate degree program.

General Studies Degree Options
Cultural Studies (GSCSO)

☞For students interested in management, any combination of the following prefixes will be considered as a single prefix: ACCT, BSAD, ECON, ENTR, FINA, INSU, and REES.
For students interested in science/health, any combination of the following prefixes will be considered as a single prefix: BIOS, CHEM, and SCIE.
For students interested in visual arts, any combination of the following prefixes will be considered as a single prefix: ARTS, 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 MCC's website at www.mccneb.edu/articulation for complete course listings and requirements.

General Studies Transfer Agreements	Four-Year Institution
Pre-Criminal Justice (PUCJO)	University of Nebraska–Omaha
Pre-Health Related Business (PSHBO)	Clarkson College
Pre-Secondary Education Industrial Technology Endorsement (PSITO)	Wayne State College

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.

Professional Skills – Specialist Diploma

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

Professional Skills (PSKSD)

The Professional Skills Specialist Diploma is designed to give individuals the skills employers want—skills in goal setting, problem solving, teamwork, listening and interpersonal communication, customer service, and applied math. The program works closely with many employers in the MCC service area to help place individuals in entry-level, career-path employment.

Requirements for Professional Skills Diploma.....25.5 Credit Hrs.

Courses		Credit Hrs.
WORK 1400	Employability Skills	3.0
WORK 1410	Secrets of Business Success	3.0
ENGL 1210	Applied Communication	4.5
MATH 1220	Business Mathematics	4.5
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.		

Customer Service Representative (PSCSD)

The Customer Service Representative Specialist Diploma is designed to prepare students to work as customer service representatives for business and industry.

Requirements for Customer Service Representative Diploma .....24.5 Credit Hrs.

Courses		Credit Hrs.
BSAD 1000	Introduction to Business	4.5
WORK 1400	Employability Skills **OR**	
HMRL 101B	Strategies for Personal Success in the Workplace **AND**	
HMRL 101C	Strategies for Working with Others	3.0
INFO 1001	Information Systems and Literacy	4.5
INFO 1008	Business Office Communications	4.5
INFO 1010	Customer Service Skills	4.5
WORK 1420	Interpersonal Communication Skills for the Workplace	3.5

Project Management (PSPSD)

Needs description

Requirements for Project Management Diploma .....27.0 Credit Hrs.

Courses		Credit Hrs.
BSAD 2100	Principles of Management	4.5
INFO 1008	Business Office Communications	4.5
INFO 1011	Project Management I	4.5
INFO 1021	Project Management II	4.5
INFO 1214	Business Presentations	4.5
HMRL 1050	Leadership: Training and Skill Development	4.5

COURSE DESCRIPTIONS

On the following pages are course descriptions for credit courses offered by MCC. Each course can be identified by a lettered subject and a course number followed by the title and a series of numbers as illustrated below. Those courses with a zero as the first digit of the course number are designated as developmental and may not be used to fulfill degree requirements (i.e. ENGL 0960).

INFO 1001 Information Systems and Literacy 3.0 – 4.5 – 4.5

- INFO — Course subject
- 1001 — Course number
- Information Systems and Literacy — Course title
- Course is offered online
- Course is offered in a hybrid format*
- 3.0 — Lecture/classroom hours per week
- 4.5 — Lab/clinical hours per week
- 4.5 — Credit hours

Prerequisites – A prerequisite—or its equivalent—must be met before the student is admitted in a course. A prerequisite may be a specific high school course, another MCC course, or a demonstrated proficiency. Prerequisites may be waived on the basis of proficiency testing and/or the recommendation of an appropriate faculty member or academic dean.

Co-requisites – Co-requisites are required program courses that must be taken simultaneously; a grouping of courses that must all be taken within the same quarter.

*A hybrid course combines classroom learning with a significant online component.

Accounting (ACCT) 295–296
Arabic (ARAB) 296
Architectural Design Technology (ARCH) 296–297
Art(ARTS) 297–299
Auto Collision Technology (AUTB) 299–300
Automotive Technology (AUTT) 300–301
Biology (BIOS) 302–303
Business Management (BSAD) 303–306
Chemistry (CHEM) 306–309
Chinese (CHIN) 309
Civil Engineering Technology (SCET) 309–310
Construction Technology (CNST) 310–312
Criminal Justice (CRIM) 313–315
Culinary, Hospitality, Research, and Management (CHRM) 315–321
Dental Assisting (DENT) 321–322
Diesel Technology (DESL) 322–325
Early Childhood Educator (ECED) 325–326
Economics (ECON) 327
Education (EDUC) 327–328
Electrical Apprenticeship (ELAP) 328
Electrical Technology (ELTR) 328–329
Electronic Imaging and Media Arts (EIMA) 329–331
Electronics Technology (ELEC) 331–332
Engineering (ENGR) 332–333
English (ENGL) 333–335
English-as-a-Second Language (ESLX) 335
Entrepreneurship (ENTR) 336
Finance (FINA) 336–338
Fire Science Technology (FIST) 339–340
French (FREN) 340–341
Geography (GEOG) 341
German (GERM) 341–342
Graphic Communication Arts and Design (GCAD) 342–343
Health (HLTH) 343–347
Health Information Management Systems (HIMS) 347–350
Health Information Technology (HITP) 350–351
Heating, Air Conditioning, and Refrigeration (HVAC) 351–353
History (HIST) 353–354
Horticulture (HORT) 354–357
Humanities (HUMS) 357–358
Human Relations (HMRL) 358–359
Human Services (HMSV) 359–361
Industrial and Commercial Trades (INCT) 362–364
Information Technology (INFO) 364–375
Insurance (INSU) 375
Interior Design (INTD) 375–376
Japanese (JAPN) 376–377
Languages and Language Interpretation (LANG) 377–378
Legal Studies (LAWS) 379–380
Mathematics (MATH) 380–383
Mechanical Design Technology (DRAF) 383
Music (MUSC) 384
Nursing (NURS) 384–385
Philosophy (PHIL) 385–386
Photography (PHOT) 386–388
Physical Education (PHED) 388
Physics (PHYS) 388–389
Plumbing Apprenticeship (PLAP) 389–390
Political Science (POLS) 390
Psychology (PSYC) 391–392
Reading and Learning Skills (RDLS) 392
Real Estate (REES) 392–393
Respiratory Care Technology (RESP) 393–395
Science (SCIE) 395
Sign Language Studies (SLIS) 395–396
Sociology (SOCI) 396–398
Spanish (SPAN) 398–399
Speech (SPCH) 400
Sustainable Energy (SNRG) 400–402
Theatre (THEA) 402–404
Utility Line Technician (UTIL) 404–405
Video/Audio Communication Arts (VACA) 405–407
Welding Technology (WELD) 407–409
Workplace Skills (WORK) 409–410

Accounting (ACCT)

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(s): (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(s): (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(s): (1) ACCT 1110
This is the final course of three accounting principles series offering introduction to management accounting, manufacturing operations, and cost accounting systems. Other topics covered include budgeting, cost-volume-profit analysis, performance evaluation using variances, differential analysis, product pricing, decision making, and capital investment analysis. Applications of well-known companies are illustrated throughout the course.

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(s): (1) 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.

ACCT 2120 Intermediate Accounting I **4.0 – 0.0 – 4.0**
Prerequisite(s): (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 1220.

ACCT 2130 Intermediate Accounting II 4.0 – 0.0 – 4.0
Prerequisite(s): (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-term and long-term liabilities, and stockholder's equity.

ACCT 2140 Intermediate Accounting III 4.0 – 0.0 – 4.0
Prerequisite(s): (1) ACCT 2130
This course is a continuation of accounting theory. Traditional and current subjects of controversy are examined. Emphasis is on income taxes, leasing, accounting changes, and pensions.

ACCT 2230 Microcomputer Business Applications 4.0 – 0.0 – 4.0
Prerequisite(s): (1) INFO 1001
Co-requisite(s): (1) 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.

ACCT 2330 Managerial Cost Accounting 4.0 – 0.0 – 4.0
Prerequisite(s): (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 2900 Special Topics in Accounting Variable
Prerequisite(s): (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(s): (1) completion of 85+ 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 Variable
Prerequisite(s): (1) instructor approval
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 is reviewed periodically by the work supervisor and faculty sponsor to assure that appropriate competencies are developed or reinforced. Based on state guidelines, students must complete 40 hours of work for each credit hour in this course.

Arabic (ARAB)

ARAB 1010 Introduction to Arabic 7.5 – 0.0 – 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.

Architectural Design Technology (ARCH)

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, and 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(s): (1) ARCH 1100 or instructor approval
In this course, students learn drawing techniques including section views, auxiliary views, and dimensioning styles using AutoCAD software. AutoCAD commands include model and paper space viewports, polylines, multilines and splines, annotation with text, use of attributes for data storage and extraction, xrefs, and basic 3-D drawing techniques.

ARCH 1120 Beginning REVIT (Building) 4.5 – 0.0 – 4.5
Prerequisite(s): (1) ARCH 1200
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(s): (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 1200 Wood-Frame Architecture☯ 8.0 – 0.0 – 8.0
Prerequisite(s): (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(s): (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(s): (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(s): (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(s): (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(s): (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(s): (2) ARCH 1110 and instructor approval
This course permits instruction in special content areas not included in other courses of the Architectural Design Technology program.

ARCH 2981 Internship Variable
Prerequisite(s): (1) 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.

Art (ARTS)

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, the evolution of art, and the relationship of the arts and society.

ARTS 1010 Drawing and 2-D Design I 2.5 – 6.0 – 4.5
This course deals with visual perception and observational drawing skills. Activities include practice with a variety of techniques, from quick sketches to drawings that take several hours to complete. Students learn to use a variety of media such as charcoal, Conté crayon, and pen and ink. Drawing from both direct observation and the imagination provide a way to learn different ways of composing picture space. Assignments focus on creative visual problem solving.

ARTS 1020 Drawing and 2-D Design II 2.5 – 6.0 – 4.5
Prerequisite(s): (1) ARTS 1010
In this course, students enhance drawing and design skills acquired in Drawing and 2-D Design I as they learn about modern and contemporary art. Students are exposed to a variety of drawing and design techniques that include color, collage, mixed media, and photography. Exposure to the computer as an art tool is encouraged but optional. Emphasis is on formal composition, visual communication and creativity, and observational drawing.

ARTS 1030 3-D Studio **2.5 – 6.0 – 4.5**
Prerequisite(s): (1) ARTS 1010
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**
Prerequisite(s): (1) ARTS 1020
This course is an introduction to basic concepts of time, change, and movement as they relate to the visual arts. Activities focus on the use of computers, video, photo, and sound but also rely on drawing and design skills acquired in earlier art courses. Linear and interactive design problems stress critical thinking through series, sequence, and visual narrative and also explore pacing, sound, and image relationships.

NOTE: It is recommended that students take INFO 1001 prior to taking ARTS 1040.

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 introductions to the arts of Asia. Students gain an understanding of the formal element 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 Pre-Columbian America. Students gain an understanding of the formal elements 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 2010 Life Drawing **2.5 – 6.0 – 4.5**
Prerequisite(s): (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, Conté crayon, ink, and pastels.

ARTS 2020 Elementary Painting **2.5 – 6.0 – 4.5**
Prerequisite(s): (1) ARTS 1020
This course introduces students to fundamental painting concepts and techniques. The emphasis is on studio practices, color, paint manipulation, and visual perception. Students explore a variety of subject matter, formal issues, and expression within the context of historical and contemporary painting.

ARTS 2025 Watercolor **2.5 – 6.0 – 4.5**
Prerequisite(s): (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(s): (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, electronics, etc.

ARTS 2040 Elementary Printmaking **2.5 – 6.0 – 4.5**
Prerequisite(s): (1) ARTS 1010
This introductory course focuses primarily on relief and intaglio types of printing. Lithography and screen printing may also be explored. Solar plates, Pronto Plates, and other print technologies using computer-generated or photographic imagery are also taught. Studio activities focus on the creation of substrates whose surfaces are saturated with ink and then hand-printed onto paper or another surface, allowing the creation of multiple originals.

ARTS 2050 Elementary Ceramics **2.5 – 6.0 – 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(s): (2) ARTS 2010 and ARTS 2020
Intermediate Painting takes students beyond fundamental studio practices, painting concepts, and skills to an increased understanding of paint media and an improved ability to paint. A set of advanced problems involving color, techniques, subject matter, and formal issues are addressed in increasingly more self-determined projects. Students are encouraged to develop self expression through painting while researching and learning from other painters, both contemporary and historical.

ARTS 2130 Intermediate Sculpture 2.5 – 6.0 – 4.5
Prerequisite(s): (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 2150 Intermediate Ceramics 2.5 – 6.0 – 4.5
Prerequisite(s): (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(s): (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 2900 Special Topics in Art Variable
Prerequisite(s): (1) instructor approval
This course permits instruction in special content areas not included in other Art courses.

Auto Collision Technology (AUTB)

AUTB 1000 Automotive Welding I 2.0 – 3.0 – 3.0
Students learn techniques of oxyacetylene cutting and welding for automotive applications. Students are introduced to the theory and use of the metal inert gas (MIG) welder and the plasma-cutting torch in the repair of high-strength steel structural and non-structural body components.

AUTB 1010 Automotive Welding II 2.0 – 3.0 – 3.0
Prerequisite(s): (1) AUTB 1000
Students continue to build skills in automotive welding applications. The MIG (metal inert gas) welding equipment is taught. Various types of positions of welds are stressed.

AUTB 1100 Structural Repair I 2.0 – 3.0 – 3.0
Prerequisite(s): (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(s): (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 Non-Structural 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 Non-Structural Repair II 4.0 – 6.0 – 6.0
Prerequisite(s): (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 Non-Structural Repair III 4.0 – 6.0 – 6.0
Prerequisite(s): (2) AUTB 1210 or equivalent and AUTB 1010
Evaluating major body damage and determining the necessary repairs are the major focus of this course. The complete job is stressed, from body repair to final refinishing.

AUTB 1300 Street Rod/Restoration I 2.0 – 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(s): (1) AUTB 1110 or equivalent
Students analyze the damaged vehicle in-depth. Major damage repair is practiced including alignment and straightening of unitized bodies. Students learn the alignment of door and window openings.

AUTB 2230 Non-Structural Repair IV 4.0 – 6.0 – 6.0
Prerequisite(s): (1) AUTB 1220
This class requires students to repair and refinish collision damage equal to 30 flat-rate hours. MIG welding and suspension damage are stressed.

AUTB 2240 Non-Structural Repair V 4.0 – 6.0 – 6.0
Prerequisite(s): (2) AUTB 2230 and 45 credits of AUTB courses
In this class, students are required to repair collision damage equal to 40 flat-rate hours. Restraint systems and glass installation are covered.

AUTB 2241 Non-Structural Repair VI 4.0 – 6.0 – 6.0
Prerequisite(s): (1) AUTB 2240
This class requires students to complete 60 flat-rate hours of collision repairs. Frame and suspension alignment, electrical systems, heating, and air conditioning are covered.

AUTB 2300 Automotive Refinishing I 2.0 – 3.0 – 3.0
Students are introduced to EPA, personal health, and safety equipment regulations. Introductions to finish systems, metal prep, sealers and primers, and masking techniques are taught in this session.

AUTB 2310 Automotive Refinishing II 4.0 – 6.0 – 6.0
Prerequisite(s): (1) AUTB 2300
This course is a continuation of Automotive Refinishing I with emphasis placed on solving paint application problems. Paint mixing, matching and application, finish defects, and causes and cures are practiced.

AUTB 2340 Automotive Custom Painting 2.0 – 3.0 – 3.0
Prerequisite(s): (1) AUTB 2310 or any one of the following: Associate Degree in Auto Collision Technology, ASE Certified Refinish Technician, or five years documented work as a refinish technician
This course gives advanced students insight and experience in the area of custom painting of automobiles, motorcycles, street rods, and other vehicles. Masking, paint types, pin striping, design layout, stencils, and mixing custom colors are among the topics covered.

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. Different types of damage, plan for repairs, repair or replace decisions, and use of crash guides are covered.

AUTB 2550 Electrical and Mechanical Systems 2.0 – 3.0 – 3.0
Students are introduced to mechanical and electrical systems of the automobile. Steering, brakes, drive line, air bags, and electrical components are covered.

AUTB 2900 Special Topics in AUTB Variable
Prerequisite(s): (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(s): (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.

Automotive Technology (AUTT)

AUTT 1010 Introduction to Auto Service and Minor Repair☯ 3.0 – 9.0 – 6.0
Prerequisite(s): (3) mechanical aptitude test, hands-on nuts and bolts test, and test into college-level math (MATH 1240)
This beginning class is introductory in nature. It deals with many of the basic elements of the auto repair trade. Items covered are safety, chemicals, fasteners, micrometers, tires, lubrication, cooling systems, bulb replacement, fluid changes, belts, and manuals. Individualized hands-on laboratory training utilizing live work is included in this course.

AUTT 1210 Automotive Electricity and Electronics I☯ 3.0 – 9.0 – 6.0
Prerequisite(s): (1) AUTT 1010 or instructor approval
Basic electrical theory is covered, including Ohm's Law and basic DC circuits. Through the use of specially designed electrical trainers and hands-on experience, electrical systems common to the automobile are investigated. The theory, construction, operation, and testing of batteries are also explained and demonstrated. Individualized hands-on laboratory training utilizing live work is included in this course.

AUTT 1220 Automotive Electricity and Electronics II☯ 3.0 – 9.0 – 6.0
Prerequisite(s): (1) AUTT 1210 or instructor approval
The fundamentals of automotive computers and their relationship with sensor inputs and actuator outputs are studied along with advanced diagnostic procedures of electronic body electrical systems. Disassembly, testing, servicing, and reassembling of starters and alternators are practiced. The design, operation, and testing of anti-lock brake and transaction control systems are also included in this course. Individualized hands-on laboratory training utilizing live work is included in this course.

AUTT 1510 Brake Systems☯ 3.0 – 9.0 – 6.0
Prerequisite(s): (1) AUTT 1010 or instructor approval
Classroom and lab hours are spent on the proper repair and diagnosis of modern brake systems. Components such as power boosters, master cylinders, and drum and disc brake hardware are studied in detail. Individualized hands-on laboratory training utilizing live work is included in this course.

AUTT 1620 Climate Control, Heating, and Air Conditioning☯ 3.0 – 9.0 – 6.0
Prerequisite(s): (1) AUTT 1210 or instructor approval
Automotive heating and air conditioning are studied extensively. The principles of troubleshooting and repair are discussed, and the course concludes with automatic temperature control operation and testing. Individualized hands-on laboratory training utilizing live work is included in this course.

AUTT 1710 Engine Mechanical Service☯ 3.0 – 9.0 – 6.0
Prerequisite(s): (1) AUTT 1010 or instructor approval
This course covers the diagnosis and repair of upper engine components. The major objective of this course is to properly diagnose engine problems, estimate repair costs, and repair the engine as necessary to conform to service specifications. Individualized hands-on laboratory training utilizing live work is included in this course.

AUTT 2310 Suspension Systems☯ 3.0 – 9.0 – 6.0
Prerequisite(s): (1) AUTT 1010 or instructor approval
This course covers the operation, diagnosis, and repair of front and rear suspension systems. Manual and power steering systems, tire and wheel balance, tire wear, and four-wheel alignment are an intricate part of this course of study. Individualized hands-on laboratory training utilizing live work is included in this course.

AUTT 2410 Basic Drivability☯ 3.0 – 9.0 – 6.0
Prerequisite(s): (1) AUTT 1210 or instructor approval
This course covers the basics of engine performance. The interrelationships of electronic systems and the use of specialized test equipment to diagnose drivability problems are emphasized. Fuel injection and fuel system components, fuel pump testing, and injector testing are studied. Individualized hands-on laboratory training utilizing live work is included in this course.

AUTT 2430 Advanced Drivability☯ 3.0 – 9.0 – 6.0
Prerequisite(s): (1) AUTT 2410 or instructor approval
Major phases of engine analysis, performance, fuel systems, emission controls, and five-gas exhaust analysis are studied in detail in this course. Oscilloscopes, diagnostic equipment, and scan tools are used. Individualized hands-on laboratory training utilizing live work is included in this course.

AUTT 2810 Manual Transmissions and Drive Trains☯ 3.0 – 9.0 – 6.0
Prerequisite(s): (1) AUTT 1010 or instructor approval
The operation, diagnosis, and repair of manual transmissions and clutches are studied in this course. Types of drivelines, differentials, CV joints, transfer cases, and four-wheel drive systems are also covered. Individualized hands-on laboratory training utilizing live work is included in this course.

AUTT 2820 Automatic Transmissions☯ 3.0 – 9.0 – 6.0
Prerequisite(s): (1) AUTT 1210 or instructor approval
This course covers the basic theory of rear-wheel drive transmission operations. Torque converters, hydraulic systems, repair, and diagnosis are explored in this course of study. Individualized hands-on laboratory training utilizing live work is included in this course.

AUTT 2830 Automatic Transaxles☯ 3.0 – 9.0 – 6.0
Prerequisite(s): (1) AUTT 2820 or instructor approval
This course covers theory and associated drive system components. Diagnosis and repair are also included to enhance the students' skills. Individualized hands-on laboratory training utilizing live work is included in this course.

AUTT 2900 Special Topics in AUTT Variable
Prerequisite(s): (1) instructor approval
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(s): (2) instructor approval and an approved work site
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.

Biology (BIOS)

BIOS 1010 Introduction to Biology ☯ **5.0 – 3.0 – 6.0**
Prerequisite(s): (2) college-level reading, writing, and math proficiency and SCIE 0900 or assessment testing
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.

NOTE: For BIOS 1010 hybrid sections, there are five mandatory on-campus labs at about two-week intervals. There is a mandatory orientation meeting at the beginning of the quarter. For each lab missed, six percent is deducted from the final grade. Auditory learners are most successful with the class format.

BIOS 1111 Biology I **4.0 – 3.0 – 5.0**
Prerequisite(s): (2) college-level reading, writing, and math proficiency and SCIE 0900 or assessment testing
This general biology course is taught as a three-course sequence: BIOS 1111, BIOS 1121, and BIOS 1130. In this first course in the sequence, students study the cellular, molecular, and genetic bases for life process. The course includes both the lecture and lab components. All three courses must be successfully completed to transfer as a two-semester general biology course.

BIOS 1121 Biology II **4.0 – 3.0 – 5.0**
Prerequisite(s): (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 the 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(s): (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(s): (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(s): (2) college-level reading, writing, and math proficiency and SCIE 0900 or assessment testing
This survey course includes all systems of the human body, emphasizing the relationship between structure and function. It is intended for certificate-seeking students in MCC programs; transfer elsewhere as anatomy/physiology credit is not assured. This course includes both lecture and lab components.

BIOS 1410 Biology of Lower Plants **3.5 – 3.0 – 4.5**
Prerequisite(s): (2) college-level reading, writing, and math proficiency and HORT 1100, BIOS 1010, or MCC Biology Placement Exam
This course constitutes a general survey of the plant kingdom with emphasis on the life cycles, habitats, relationships, and evolutionary aspects of the lower plants. This course includes both lecture and lab components.

BIOS 1500 Introduction to Bioprocessing **3.5 – 3.0 – 4.5**
Prerequisite(s): (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(s): (2) college-level reading, writing, and math proficiency and BIOS 1010 or equivalent
To understand many of the advances taking place in biology and medicine requires a good understanding of genetics. Both classical and modern genetics are discussed in this course.

BIOS 2150 Microbiology **5.0 – 3.0 – 6.0**
Prerequisite(s): (2) college-level reading, writing, and math proficiency and BIOS 1010
A study of the structure, physiology, ecology, and human health implications of microorganisms are included. 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(s): (2) college-level reading, writing, and math proficiency and BIOS 1010 or equivalent
Co-requisite(s): (1) CHEM 1010; previous or concurrent enrollment in CHEM 1211 or CHEM 1212 may be substituted for this co-requisite
An in-depth study of human anatomy and physiology is presented in this course by examining cell function, tissues, and the skeletal, muscular, and nervous systems. This course includes both lecture and lab components.

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(s): (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(s): (1) instructor approval
This course allows for instruction in special content areas not included in other Biology courses.

Business Management (BSAD)

BSAD 1000 Introduction to Business **4.5 – 0.0 – 4.5**
A survey of the structure and functions of the American business system is provided together with an overview of business organization, finance, managerial control, production and distribution, personnel, the interdependence of business and government, and consumer business relations.

BSAD 1004 Introduction to e-Commerce **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) INFO 1001
This course introduces the concepts, vocabulary, and procedures associated with e-commerce and the Internet as students gain an overview of all aspects of e-commerce. Topics include development of the Internet and e-commerce, options available for doing business on the Internet, features of websites and the tools used to build an e-commerce website, marketing issues, payment options, security issues, and customer service. (Cross-listed as INFO 1004)

BSAD 1010 Principles of Marketing **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) BSAD 1000 or equivalent
This course features a survey of the distributive fields, their functions, and interrelationships. The course covers pricing policies, promotional activities, marketing in special fields, and market analysis.

BSAD 1100 Business Law I **4.5 – 0.0 – 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(s): (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**
Fundamentals of selling, from the determination of customer needs to the close of the sale, are covered. 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. The role of advertising and sales promotion in the economy is considered. The course includes a general survey of the kinds and purposes of media, the psychological 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
A practical presentation of direct marketing methods and techniques covering telemarketing, direct mail, television, newspaper, and magazines is offered. Topics presented include creating and producing direct marketing messages, media analysis and selection, and operational management. This course is a practical, hands-on experience for business managers 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(s): (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, metropolitan area retailers are invited to discuss the actual application of various retailing activities (e.g., buying, advertising, and inventory control).

BSAD 1250 Introduction to Not-for-Profit Management 4.5 – 0.0 – 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
Emphasis is given to the first-line supervisor's needs for a working understanding of the functions of management, teamwork, cultural diversity, and practical aspects of motivation. This course also emphasizes developing an ability to constructively self-evaluate with a view toward developing attitudes, habits, and skills that lead to effective, and personally rewarding, supervisory skills.

BSAD 2100 Principles of Management 4.5 – 0.0 – 4.5
This is an introduction to the theory and practice of management of the organization. The various schools of management theory are discussed. Special attention is devoted to the process of planning, decision making, organizing, leading, and controlling the organization.

BSAD 2300 Quality Management: Statistical Process Control 4.5 – 0.0 – 4.5
Foreign competition has had a severe impact on the U.S. economy and has created a need for business to improve the quality of goods and services and the productivity of the workforce in order to regain its competitive position. This course presents the management principles and statistical methods that have been adopted successfully by many foreign firms. Emphasis is placed on management's responsibility to make system changes to improve quality and productivity, to include obligations relative to customer satisfaction, to design and develop products and services, and to 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 are introduced to the application of effective production and operations management techniques; the measurement of productivity and customer service; the planning and management of materials, manpower, and capacity; and the concepts of quality and project management.

BSAD 2600 Human Resources Management **4.5 – 0.0 – 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 **3.0 – 0.0 – 4.5**
A study of the history of the union movement and its present consequences for U.S. labor and management is completed. Topics covered include the collective bargaining process, typical grievance procedures, applicable laws and regulations, mediation and arbitration, union organizing processes and limitations, and adversarial versus cooperative union and management relationships.

BSAD 2630 Human Resource Development **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) BSAD 2600 or current membership in HRAM
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. The management of multinational firms is studied 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 covered 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(s): (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. Emphasis is given to analyzing, developing, and designing global marketing strategies and programs. Reference is drawn on well-known companies in Europe, Asia, and the Americas that explore global marketing issues.

BSAD 2900 Special Topics in Management **4.5 – 0.0 – 2.0**
Prerequisite(s): (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(s): (1) completion of 85+ 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 2941 e-Commerce Capstone **2.0 – 6.0 – 4.5**
This course is intended to place students in realistic situations within a simulated e-commerce environment. Available positions include management, networking, computer programming, web development, and database operations. Students gain operational experience in selected areas of concentration, apply human relations skills, practice ethical decision-making techniques, demonstrate teamwork, and gain experience in the interdependence of all functions in an operational and developmental environment. (Cross-listed as INFO 2941)

NOTE: Students should have completed all general education, core, and concentration requirements in the e-Commerce degree before enrolling in this course.

BSAD 2981 Internship **Variable**

Prerequisite(s): (1) instructor approval

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 are reviewed periodically by the various work supervisors and faculty sponsors 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.

Chemistry (CHEM)

CHEM 1010 College Chemistry☯ **5.0 – 3.0 – 6.0**

Prerequisite(s): (3) college-level reading, writing, and math proficiency; SCIE 0900 or assessment testing; and MATH 0931 or MATH 0960

The principles relevant to a basic understanding of chemistry are examined in this course. The topics include atomic structure, chemical bonding, stoichiometry, gas laws, solutions, acid/base chemistry, and equilibria. This course includes both lecture and lab components.

CHEM 1120 Chemistry for the Health Sciences I **2.5 – 1.5 – 3.0**

Prerequisite(s): (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 is designed to give 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(s): (2) college-level reading, writing, and math proficiency and CHEM 1120, CHEM 1211, CHEM 1212, or assessment testing

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. The 3-D nature of carbon molecules is introduced, and the relationship between shape and physiological activity is explored. 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 CHEM 1130 must be completed to satisfy the requirements for transfer as a four-semester credit course for baccalaureate work. This course includes both lecture and lab components.

CHEM 1210 General Chemistry: Part I **1.5 – 1.5 – 2.0**

Prerequisite(s): (4) college-level reading, writing, and math proficiency; high school chemistry; SCIE 0900 or assessment testing; and MATH 0931 or MATH 0960

Co-requisite(s): (1) MATH 1310

Students who need a one-year college chemistry course but who feel they are lacking the basic skills needed to be successful in a faster-paced course should consider taking this course. Completion of both CHEM 1210 and CHEM 1211 is equivalent to one semester of General Chemistry I. Topics included in this 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 must be taken concurrently or previously 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 CHEM 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 designed 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 CHEM 1211 must be successfully completed to transfer as a semester-length course.

CHEM 1211 General Chemistry: Part II 3.0 – 3.0 – 4.0
Prerequisite(s): (3) college-level reading, writing, and math proficiency; CHEM 1210; and MATH 1310
Co-requisite(s): (1) MATH 1420
This course is a continuation of CHEM 1210. Completion of both CHEM 1210 and CHEM 1211 is equivalent to one semester of General Chemistry I. Topics in this second portion include modern bonding theories, VSEPR theory, stoichiometry, solution chemistry, thermochemistry, and the chemistry of solids, liquids, and gases.

NOTE: The co-requisite MATH 1420 must be taken concurrently or previously 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 CHEM 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 designed 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 CHEM 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(s): (4) college-level reading, writing, and math proficiency; CHEM 1010 or strong high school chemistry course; SCIE 0900 or assessment testing; and MATH 1310
Co-requisite(s): (1) MATH 1420
This is an accelerated General Chemistry I course for students who have some knowledge of chemistry. 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 must be taken concurrently or previously 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. The second format of General Chemistry I (CHEM 1212) is an accelerated format. It is assumed that students taking the 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(s): (3) college-level reading, writing, and math proficiency; CHEM 1211 or CHEM 1212; and MATH 1420
The conclusion of the one-year college chemistry program covers such topics as solutions, equilibrium, acid-base reactions, thermodynamics, electrochemistry, kinetics, nuclear chemistry, and the chemistry of various specific substances (e.g., metal, non-metals, coordination compounds, etc.).

NOTE: General Chemistry II (CHEM 1220) is offered in the accelerated format only.

CHEM 1510 Chemistry for Bio-Industry I 2.5 – 1.5 – 3.0
Prerequisite(s): (2) college-level reading, writing, and math proficiency and CHEM 1010, CHEM 1211, or CHEM 1212
This course is designed to give students entering a biotech career fundamental knowledge of those areas of chemistry that relate to bio-industrial principles. This course covers topics that include 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 CHEM 1520 must be completed for transfer as a four-semester credit chemistry course for baccalaureate work. This course includes both lecture and lab components.

CHEM 1520 Chemistry for Bio-Industry II 2.0 – 3.0 – 3.0
Prerequisite(s): (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 bio-industrial principles. This course parallels the chemistry of organic molecules to biochemical functions. The 3-D nature of carbon molecules is introduced, and the relationship between shape and physiological activity is explored. 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 CHEM 1520 must be completed to satisfy the requirements for transfer as a four-semester credit course for baccalaureate work. This course includes both lecture and lab components.

CHEM 2310 Fundamentals of Organic Chemistry 5.0 – 3.0 – 6.0
Prerequisite(s): (2) college-level reading, writing, and math proficiency and CHEM 1010 or equivalent
This fundamental course provides students with 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 are utilized to describe hydrocarbons, alcohols, aldehydes, ketones, and carboxylic acids. The relationship of these compounds to biochemicals is discussed. This course includes both lecture and lab components.

CHEM 232A Organic Chemistry IA 2.0 – 1.5 – 2.5
Prerequisite(s): (2) college-level reading, writing, and math proficiency and CHEM 1220 or an equivalent general chemistry course
Organic Chemistry I is designed to provide a comprehensive study of the chemistry of carbon compounds. 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 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(s): (2) college-level reading, writing, and math proficiency and CHEM 232A
Organic Chemistry I is designed to provide a comprehensive study of the chemistry of carbon compounds. 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 structure, properties, and reactions of alkenes and alkynes, including mechanism and stereochemistry.

CHEM 232C Organic Chemistry IC 2.0 – 1.5 – 2.5
Prerequisite(s): (2) college-level reading, writing, and math proficiency and CHEM 232B
Organic Chemistry I is designed to provide a comprehensive study of the chemistry of carbon compounds. 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. Topics in this module 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(s): (2) college-level reading, writing, and math proficiency and CHEM 232C
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 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(s): (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 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 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(s): (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.

Chinese (CHIN)

CHIN 1110 Beginning Chinese I **7.5 – 0.0 – 7.5**
This course provides fundamental knowledge about Chinese language and culture. All four language skills—reading, writing, speaking, and listening—are emphasized. The Pinyin system of phonetic transliteration is used to teach the pronunciation of syllables and words. The formation of Chinese characters is introduced, and core vocabulary and grammar are established.

Civil Engineering Technology (SCET)

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 analysis and interpretation of topographic maps and aerial photographs are also covered.

SCET 1040 Introduction to Environmental Engineering **3.0 – 0.0 – 3.0**
Prerequisite(s): (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 in this class. 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 are covered.

SCET 1060 Engineering Geology **3.0 – 0.0 – 3.0**
Prerequisite(s): (1) SCET 1000 or instructor approval
This course is an introduction to geology. It includes a study of the basic rock and soil types, the hydrological cycle, ground water and related phenomena, and interpretation of the effects of various geological processes upon the surface of the earth.

SCET 1070 Contracts and Specifications **3.0 – 0.0 – 3.0**
In this course, students learn about the Law of Contracts and its application to engineering projects. Featured are specification writing and other problems in the general field of engineering law, responsibility to clients, the engineer as an expert witness, and professional ethics.

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 1120 AutoCAD Essentials **9.0 – 0.0 – 9.0**
In this course, students are introduced to basic computer-aided design 2-D drawing techniques using AutoCAD software. Drawing terminology, AutoCAD menus, text creation and editing, dimensioning, plotting and geometric construction, and file manipulation techniques are covered. 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(s): (1) SCET 1050 or instructor approval
Hands-on experience with Autodesk REVIT Structure software introduces students to the basic functions of Building Information Modeling (BIM) and REVIT concepts. Students concentrate on structural building components (grids, columns, beams, slabs, foundations, etc.), and construction documents are produced from 3-D models.

SCET 1140 Intermediate REVIT (Structure) **4.0 – 0.0 – 4.0**
Prerequisite(s): (1) SCET 1130, ARCH 1120, 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(s): (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(s): (1) MATH 1310
Fundamental concepts of surveying, definitions, errors, computations, and field notes are studied. Theory and practice of measuring distance, measurement of different levels of elevation, use and care of leveling instruments, leveling methods, and field practice are included.

SCET 2010 Fluid Mechanics 4.0 – 0.0 – 4.0
Prerequisite(s): (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(s): (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. Mathematics applications in daily surveying duties are covered.

SCET 2240 Mapping, Staking, and GPS 6.5 – 0.0 – 6.5
Prerequisite(s): (2) INFO 1001 and SCET 2220
In this course, students engage the topics of topographic mapping and route location, understand design data and drawing, and use complex design information to create field data for construction staking. They are introduced to Global Positioning System (GPS) basics, concepts, and applications. Land division types and ethics in business and surveying are also covered.

SCET 2300 Structures I 4.0 – 0.0 – 4.0
Prerequisite(s): (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(s): (1) SCET 2300
This course is an introduction to the strength of materials. Included are engineering materials and their properties, stress, and deformation.

SCET 2320 Structures III 4.0 – 0.0 – 4.0
Prerequisite(s): (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(s): (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 in this course.

Construction Technology (CNST)

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 are provided with a basic understanding of symbols and abbreviations used on prints. Types of residential drawings covered include floor plans, elevation views, sectional views, detail views, and plot plans. This course does not count 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. Information on building materials, products, systems, and procedures are also presented.

CNST 1010 Print Reading II – Residential/Light Commercial 3.5 – 0.0 – 3.5
Prerequisite(s): (1) CNST 0050 or assessment
In this course, students learn 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. Emphasis is on reading an architect's scale. Also included are 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(s): (1) CNST 1010
This course is designed to develop 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. Included are 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 laboratory 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 ALCOA Siding Installation 3.0 – 1.5 – 3.5
Designed by ALCOA Building Products, this course provides training and skills needed to work as a siding installer. It also provides entrepreneurs a foundation of skills and knowledge to form crews in the field of siding installation.

CNST 1070 EIFS and Stucco Finish 3.0 – 1.5 – 3.5
This course is designed to teach students to apply two different exterior finishing systems: stucco, a non-insulated cement plaster wall covering, and EIFS, an exterior insulated finishing system. Both systems are applied by students in a practical laboratory experience.

CNST 1110 Construction Safety 1.0 – 0.0 – 1.0
This course provides students with training outlined by the Occupational Safety and Health Administration (OSHA). This course supplies students with the recommended requirements for working in the construction field.

CNST 1220 Demolition and Remodeling 6.0 – 1.5 – 6.5
Prerequisite(s): (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 demolition. Actual remodeling projects such as floor, wall, ceiling, and roof alterations are undertaken. Students evaluate existing loads and calculate new structural loads for additions using the latest IRC building code.

CNST 1250 Interior Finish 6.0 – 1.5 – 6.5
Prerequisite(s): (2) CNST 1010 and CNST 1050 or instructor approval
This course presents interior finish terms and definitions that are used in the construction field. 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 are covered. Estimation of labor and materials in all areas are emphasized.

CNST 1255 Commercial Framing 6.0 – 1.5 – 6.5
Prerequisite(s): (2) CNST 1015 and CNST 1050
This course is designed to give students a hands-on approach to metal stud framing. This course covers proper layout procedures and wall types for interior, exterior, furred, structural, and fire-rated walls. Methods of building headers, columns, soffits, and ceilings are also covered along with proper construction terms, definitions, specifications, and codes.

CNST 1260 Introduction to Cabinet Making 3.0 – 0.0 – 3.0
Prerequisite(s): (1) CNST 1010 or instructor approval
This course covers all aspects of cabinet making, beginning with cabinet design and ending with industrial production and potential employment opportunities in cabinet making. Other topics include materials used in cabinets, cabinet hardware, cabinet-making tools, and built-in cabinets. In addition, students spend time making sketches and working drawings of different cabinet styles.

CNST 1261 Basic Cabinet Construction 6.0 – 1.5 – 6.5
Prerequisite(s): (2) CNST 1050 and CNST 1260
This course covers fabricating basic cabinets, cabinet materials, tool usage, safety, joinery, and material costs. Methods of assembling and installation are stressed.

CNST 1270 General Painting, Staining, and Cabinet Finishing 2.5 – 1.5 – 3.0
Professional painting and finishing techniques are demonstrated and practiced in this course. 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(s): (1) CNST 1010 or instructor approval
This course deals with floor framing, wall parts, wall construction, and installation of ceiling joists. A full-scale house is constructed in the indoor laboratory.

CNST 1355 Commercial Finish 6.0 – 1.5 – 6.5
Prerequisite(s): (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(s): (2) CNST 1010 and CNST 1050 or instructor approval
This course includes terms and definitions used in the construction field pertaining to exterior finish. Theory and practical application of various types of wall covering, roof covering, exterior doors, windows, and trim are covered. Estimation of labor and materials in all areas is emphasized. Students install exterior siding, roofing, windows, doors, and roofing materials on a house in the indoor laboratory.

CNST 1400 Introduction to Masonry 6.0 – 1.5 – 6.5
In this basic masonry course, brick and block construction are emphasized. Students mix mortar and use the trowel, spread mortar, cut brick and concrete blocks, and level and plumb laid-up units. Dry bonding techniques and various brick-block patterns are included.

CNST 1410 Advanced Masonry Construction 6.0 – 1.5 – 6.5
Prerequisite(s): (1) CNST 1400 or instructor approval
In this course, 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
In this course, 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 laboratory 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). Estimating costs are also covered.

CNST 1510 Concrete and Wall Forms 6.0 – 1.5 – 6.5
In this course, students learn definitions, concrete forms for footings, piers, columns, foundation walls, and various foundation wall openings. They study fluid pressure checks, rate of pour, and monitoring the pour. The course also includes types of wall forms, advantages of gang and panel forms, estimating materials and number of forms, methods of bracing forms, and monitoring form stability during pouring operations. Students construct a foundation wall form with pilaster door and window openings.

CNST 2050 Builders Level, Transit, and Building Layout 3.0 – 1.5 – 3.5
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. Understanding surveyor's terms and markings is stressed.

CNST 2100 Construction Safety 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 4.0 – 0.0 – 4.0
Prerequisite(s): (1) CNST 1350, CNST 2360, or instructor approval
In this course, students gain knowledge and skills needed to estimate construction projects. It includes quantity take-offs and the actual estimation of materials and labor encountered in the field of construction today. Students design Excel spreadsheets to organize take-offs.

CNST 2140 Job Site Management 4.5 – 0.0 – 4.5
Prerequisite(s): (2) CNST 1000 and CNST 1010 or instructor approval
In this course, 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(s): (2) CNST 1010 and CNST 1050 or instructor approval
This course covers the principles, calculations, and cutting of all components of gable, hip, and valley rafters. Students frame an actual roof on a house in the indoor laboratory.

CNST 2380 Stair Construction 3.0 – 1.5 – 3.5
Prerequisite(s): (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(s): (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(s): (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 in this course.

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.

Criminal Justice (CRIM)

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, but are not limited to, 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(s): (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, but are not limited to, 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. The history, philosophy of adult and juvenile probation, and parole in the United States is also covered.

CRIM 2020 Legal Issues in Corrections **4.5 – 0.0 – 4.5**
This course is an introduction to constitutional issues relating to corrections. Study is made of court processes, with particular emphasis on major cases affecting corrections, including probation and parole.

CRIM 2030 Police and Society **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) CRIM 1010
This course examines the role of the police in relationship to law enforcement and American society. Topics include, but are not limited to, the role and function of police, the nature of police organizations, and police work and the patterns of police-community relations.

CRIM 2050 Principles of Interviewing and Interrogation **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) CRIM 1010
Interviews of witnesses, informants, and complainants are examined as a communicative relationship. Demonstration, study, and practice of acceptable techniques and procedures, in accordance with due process, are included.

CRIM 2120 Community-Based Corrections **4.5 – 0.0 – 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. Also discussed are 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(s): (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 GPS 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(s): (1) CRIM 1010
This is an analysis of the duties, extent of authority, and responsibilities of the uniformed patrol officer. Rationales for the patrol philosophy and practices are outlined, and accepted field techniques and their practical applications are presented.

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, but are not limited to, 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(s): (1) CRIM 1010
The traditional and current problems that inhibit understanding among all segments of the criminal justice system and the public are examined. Methods of creating understanding and confidence by using various means of communication are explored.

CRIM 2310 Rules of Evidence **4.5 – 0.0 – 4.5**
This course emphasizes the concept of evidence and rules governing its admissibility. Theoretical and pragmatic considerations of constitutional requirements affecting evidence and procedure are also covered.

CRIM 2320 Correctional Facility **4.5 – 0.0 – 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 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 prospective on constitutional rights, the capacity of the government and the criminal justice system to respond to international acts of terrorism, and how to keep America safe.

CRIM 2410 Homeland Security Transportation **4.5 – 0.0 – 4.5**
This course 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. An international approach is taken 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 covered 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 (WMD)—chemical, biological, radiological, nuclear, and explosive (CBRNE) 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 WMD 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 **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(s): (1) CRIM 2500
This course outlines the basic concepts and principles of criminal and civil law as they pertain to private security. The differences and similarities with law enforcement such as powers of arrest, use of force, search and seizure, and protection of private versus public property are examined.

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. 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 are explored.

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. Overviews 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 CPTED (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 is designed to permit instruction in special content areas not included in other courses of the Criminal Justice program.

CRIM 2960 Internship **0.0 – 22.5 – 4.5**
Prerequisite(s): (3) completion of at least 30.0 quarter hours within the program, 2.5 GPA, and instructor approval
The internship is a legal agreement between the College and public or private criminal justice agencies to provide hands-on training for students. Written goals and objectives, as well as evaluation criteria, are agreed upon and confirmed in writing by the students, the job site supervisor, a faculty monitor, and the academic dean. In lieu of using already-established internship sites, students are encouraged to develop their own provided that such sites satisfy the requirements of the internship program. 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 in this course.

Culinary, Hospitality, Research, and Management (CHRM)

CHRM 0950 Culinary Math **2.0 – 0.0 – 2.0**
This course covers all of the basics of culinary math. Topics include cost and profit formulas, recipe conversion, and baking formulas, as well as basic math principles. Students who are uncomfortable with math are recommended to take this course in their first quarter of enrollment.

CHRM 1000 CHRM Orientation **2.0 – 0.0 – 2.0**
This course is an introduction to the Culinary, Hospitality, Research, and Management program (CHRM). Topics included are 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, 2000, and 2999 are designed to be the guideposts for students as they travel through the Culinary Arts and Management program.

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. The study of the flow of food through the operation, as well as safe storage, sanitary facilities, and equipment is included. Other topics include establishment of an integrated pest management system, accident prevention, and crisis handling. There is an extensive discussion of sanitary regulations, agencies, and employee sanitation training. Upon successful completion of the ServSafe exam, students receive the National Restaurant Association's certificate.

CHRM 1030 Culinary Foundations I 2.0 – 6.0 – 4.0
Co-requisite(s): (2) CHRM 1000 and CHRM 1020
Students learn concepts of sanitation and safety as it relates to the foodservice industry. Areas addressed include tools, equipment, knife skills, food and plate presentation, food evaluation, basic cooking principles to include moist and dry heat methods, seasonings, flavorings and aromatics, fats, dairy products, eggs, and palate development. Approved uniform, supplies, and text are required by the first day of this course.

NOTE: The co-requisites CHRM 1000 and CHRM 1020 must be taken concurrently or previously completed.

CHRM 1035 Culinary Foundations II 2.0 – 6.0 – 4.0
Prerequisite(s): (1) CHRM 1030
Students study and apply cooking methods of scratch cookery through small batch assignments. Areas of study include rice and grains, potato products, wheat-based products to include pastas and dumplings, breakfast items, beans and soy products, fruits, vegetables, salads, protein, and sandwiches. Students practice elementary presentation and garnishing. (Formerly CHRM 1110)

CHRM 1050 Basics of Quantity Production 0.0 – 4.5 – 1.5
Prerequisite(s): (1) CHRM 1020 or instructor approval
This course prepares students to inspect, appraise, and participate in food production and planning for quantity service. Hands-on experiences include use and care of large equipment, dish room management, and quantity preparation of food.

CHRM 1060 Spanish for Culinary Professionals 3.0 – 0.0 – 3.0
In this course, students study the Spanish language as it relates to the foodservice 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 Cookery 1.0 – 6.0 – 3.0
Prerequisite(s): (1) CHRM 1030
Students study and apply cooking methods of scratch cookery through small batch assignments. Areas of study include stocks, thickeners, roux-based sauces to include the four mother sauces, hot and cold butter sauces, emulsion sauces, salsas, sambals, vinaigrettes, and reductions. Soups include cream, clear, and potage.

CHRM 1130 Protein Fabrication 1.5 – 4.5 – 3.0
Prerequisite(s): (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 À la Carte Cookery 0.0 – 9.0 – 3.0
Prerequisite(s): (1) CHRM 1030
Study focuses on the preparation of food items for service in a guest-centered à la carte environment. Students gain proficiency in the areas of kitchen sense, mise en place, and hustle. An introduction to the concepts of food presentation is also included.

CHRM 1210 Baking Basics 2.0 – 6.0 – 4.0
Prerequisite(s): (1) CHRM 1030
Students learn to apply fundamental baking skills in preparing yeast breads, quick breads, cookies, pies, pastries, cakes, custards, creams, and sauces.

CHRM 1220 Pastries 1.0 – 6.0 – 3.0
Prerequisite(s): (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, puff pastries, pâte à choux, meringues, assorted pastes and tarts, icing, fillings, and glazes.

CHRM 1250 Artisan Bread 2.0 – 6.0 – 4.0
Prerequisite(s): (1) CHRM 1210
This course is an in-depth study of artisan bread baking. Old-world techniques are applied with an emphasis on leavens, polish, and sponge bread methods.

CHRM 1260 Cakes 2.0 – 6.0 – 4.0
Prerequisite(s): (1) CHRM 1210
This course provides an in-depth study of cake formula and assembly techniques. Topics include knowledge of different cake making methods, ingredients for icings, fillings, coatings, glazes, and production of finished cakes. Attention is given to production of layered and component cakes using an assortment of creams including crème patisserie, Bavarians, and mousse.

CHRM 1990 Skills Demonstration for Bakers 0.0 – 10 – 2.0
Prerequisite(s): (2) all first-year Baking and Pastry program option courses (8) are completed 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 1991 Apprenticeship Practicum 1 **0.0 – 15.0 – 3.0**
Prerequisite(s): (2) CHRM 1999 and instructor approval
The practica are special cooperative educational experiences set up with the College and approved chefs. Students work a minimum of 150 hours per quarter and maintain a logbook of hours, experiences, and recipes.

CHRM 1992 Apprenticeship Practicum 2 **0.0 – 15.0 – 3.0**
Prerequisite(s): (1) CHRM 1991
The practica are special cooperative educational experiences set up with the College and approved chefs. Students work a minimum of 150 hours per quarter and maintain a logbook of hours, experiences, and recipes.

CHRM 1993 Apprenticeship Practicum 3 **0.0 – 15.0 – 3.0**
Prerequisite(s): (1) CHRM 1992
The practica are special cooperative educational experiences set up with the College and approved chefs. Students work a minimum of 150 hours per quarter and maintain a logbook of hours, experiences, and recipes.

CHRM 1994 Apprenticeship Practicum 4 **0.0 – 15.0 – 3.0**
Prerequisite(s): (1) CHRM 1993
The practica are special cooperative educational experiences set up with the College and approved chefs. Students work a minimum of 150 hours per quarter and maintain a logbook of hours, experiences, and recipes.

CHRM 1999 Skills Demonstration for Culinarians **0.0 – 10 – 2.0**
Prerequisite(s): (2) all first-year Culinary program option courses are completed 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 2000 Stagiaire **0.0 – 10.0 – 2.0**
Prerequisite(s): (1) CHRM 1999 or CHRM 1990
Students learn the many facets of the culinary and hospitality world through participation in myriad events and experiences. The creation of individual educational development plans, to be completed over several quarters, guides students' progress against self-stylized goals. This course should be taken during the first quarter of enrollment after completing CHRM 1999 or CHRM 1990.

NOTE: CHRM 1000, 1999, 2000, and 2999 are designed to be the guideposts for students as they travel through the Culinary Arts and Management program.

CHRM 2110 Quantity Production **0.0 – 12.0 – 4.0**
Prerequisite(s): (1) CHRM 1999
Students learn to prepare, merchandise, and service large quantities of food. Production of entrées, soups, sauces, salads, sandwiches, and convenience bakeshop items is emphasized.

CHRM 2120 Garde Manger **0.5.0 – 10.5 – 4.0**
Prerequisite(s): (1) CHRM 1999
Students study traditional upscale pantry preparation. Students practice techniques for artistic displays of hors d'oeuvres, canapés, pâtes, terrines, and charcuterie. Students also practice artisan food preservation.

CHRM 2130 Fine Dining **0.0 – 12.0 – 4.0**
Prerequisite(s): (1) CHRM 1999
In this course, students learn à 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 2140 International Cuisine **1.0 – 6.0 – 3.0**
Prerequisite(s): (1) CHRM 1999
This course covers international cuisine focusing on indigenous, cultural and religious influences, and historical events. A technical and scientific approach to flavor profiles is used. Students build a professional palate through sensory experience of new ingredients and flavor combinations and by utilizing cooking methods practiced by each ethnic group visited.

CHRM 2230 Baking Production **0.0 – 12.0 – 4.0**
Prerequisite(s): (1) CHRM 1990 or CHRM 1999
This class gives practical experience in preparation of retail bakery products to include breads, rolls, breakfast pastries, cookies, pies, tarts, and cakes. Students learn to meet production demands based on needs and customer expectation and satisfaction. Theory learned in other courses (i.e., sanitation, nutrition, purchasing, etc.) is tied into these experiences in a practical way so that students develop and increase their baking techniques and kitchen sense.

CHRM 2250 International Breads 1.0 – 6.0 – 3.0
Prerequisite(s): (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(s): (1) CHRM 1999 or 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(s): (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 4.5 – 0.0 – 4.5
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 culinary professional to respond knowledgeably to customers' specific nutrition needs. Guidelines for applying nutrition principles in preparing and developing menus with healthy foods are also included.

CHRM 2360 Physiology of Flavor 2.0 – 7.5 – 4.5
Prerequisite(s): (1) CHRM 1030
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(s): (2) CHEM 1010 (or higher) or Research Chef's Association membership and CHRM 1999
This course is an overview of major food components (carbohydrates, proteins, fats, vitamins, and minerals) and the bases for food preservation, including processing, food legislation, food safety, and current food issues. Structure-function relationships of water, proteins, lipids, carbohydrates, minerals, and natural products in food systems are also covered. 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(s): (1) CHRM 2370
This course introduces students to sensory science and evaluation. Topics covered include the techniques and theory of food sensory measurement and perception of food. Statistical methods for interpreting results are also covered.

CHRM 2390 Research and Development of Food Products 2.5 – 6.0 – 4.5
Prerequisite(s): (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. The creation of a new food product in a real-world research and development facility is covered as a laboratory experience.

CHRM 2460 Cost Management 4.5 – 0.0 – 4.5
Prerequisite(s): (1) CHRM 0950 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 foodservice operations.

NOTE: For CHRM 2460, CHRM 2465, and CHRM 2480, math skills at the MATH 1220 level are recommended to be successful in the course.

CHRM 2465 Foodservice Financial Management 4.5 – 0.0 – 4.5
Prerequisite(s): (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.

NOTE: For CHRM 2460, CHRM 2465, and CHRM 2480, math skills at the MATH 1220 level are recommended to be successful in the course.

CHRM 2470 Hospitality Supervision 4.5 – 0.0 – 4.5
Approaches for effective culinary or hospitality supervision are considered in this course. Methods of recruiting, selecting, training, and evaluating personnel are covered. Team building and conflict management concepts are examined.

CHRM 2475 Leadership Principles 4.5 – 0.0 – 4.5
Leadership and decision-making principles as applied to a variety of food operations are the focus of this course. Skills in communication, empowerment, and planning are developed.

CHRM 2480 Purchasing 4.0 – 1.5 – 4.5
Purchasing methods and specifications in a variety of food operations are covered in this course. Students write purchasing specifications for a variety of foods, using general purchasing methods, requirements, procedures, and ethics.

NOTE: For CHRM 2460, CHRM 2465, and CHRM 2480, math skills at the MATH 1220 level are recommended to be successful in the course.

CHRM 2550 Table Service 0.0 – 12.0 – 4.0
Prerequisite(s): (1) CHRM 1999, CHRM 1990, or instructor approval
The 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
In this course, 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 2.5 – 6.0 – 4.5
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.

CHRM 2620 Tourism and Hospitality 3.0 – 0.0 – 3.0
This course covers travel promotion, suppliers, the environment of the industry, service, entertainment, accommodations, and the future of tourism.

CHRM 2630 Lodging and Hospitality 3.0 – 0.0 – 3.0
This course covers the foundations of lodging management, lodging structures, front office, human resources, food and beverage, housekeeping, maintenance, and accounting.

CHRM 2650 Banquet and Catering 0.5 – 10.5 – 4.0
Prerequisite(s): (1) CHRM 1990, CHRM 1999, or instructor approval
Students are introduced to the preparation and service requirements for successful on-site and off-site events. They learn the practical skills of buffet catering and banquet organization in a guest-centered environment. A flexible schedule is required in order to be successful in this course.

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 – 7.5 – 4.5
This course creates an industry-driven learning environment in which a small community of accomplished culinary students apply and expand their accumulated knowledge while working side-by-side with chef-instructors, restaurant professionals, and other industry leaders. A broad, multi-disciplinary approach is used to complete a culinary-based client-centered consulting project. Possible projects include, but are not limited to, restaurant openings, recipe development, employee handbooks, training manuals, menu design and development, kitchen layout, event planning, and concept development. Students 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
A broad, multi-disciplinary approach is used to develop food-related media pieces, including, but not limited to, cookbooks, television programs, magazine articles, commercial art, and radio programs. The members of the studio 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 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 2970 Culinary Competition 0.0 – 9.0 – 3.0
Prerequisite(s): (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 Chef's Association, and the Retail Baker's Association. Students develop competition-quality menus, refine their culinary skills, apply knowledge obtained throughout the Culinary Arts curriculum, foster team-building skills, and gain exposure to their regional and national contemporaries. Completion of this course requires participation in an extracurricular sanctioned culinary event that may require additional fundraising and membership in outside organizations.

CHRM 2971 Advanced Culinary Competition 1 **0.0 – 9.0 – 3.0**
Prerequisite(s): (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 2972 Advanced Culinary Competition 2 **0.0 – 9.0 – 3.0**
Prerequisite(s): (1) CHRM 2971
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(s): (1) CHRM 2972
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(s): (1) CHRM 2973
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(s): (1) CHRM 2974
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(s): (1) CHRM 2975
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(s): (1) CHRM 2976
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(s): (1) CHRM 2977
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(s): (1) CHRM 2978
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 – 13.5 – 4.5**
Prerequisite(s): (1) CHRM 2550, CHRM 2475, or CHRM 2470
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(s): (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 – 13.5 – 4.5**
Prerequisite(s): (1) CHRM 2280
This course provides students practical experience in the operation of the retail bakery from the perspective of a student manager. This experience includes bakery menu planning, product packaging, displaying and pricing, quality, and cost control, as well as customer service and relations. These duties tie into classroom work (sanitation, nutrition, purchasing, cost management, supervision) in a practical way.

CHRM 2990 Portfolio Development for Bakers **0.0 – 10 – 2.0**
Prerequisite(s): (2) all Baking and Pastry program option classes are completed or in progress and instructor approval
All skills gained throughout the Baking and Pastry curriculum are documented 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 of Applied Science Degree.

CHRM 2995 Apprenticeship Practicum 5 **0.0 – 15.0 – 3.0**
Prerequisite(s): (1) CHRM 1994
The practica are special cooperative educational experiences set up with the College and approved chefs. Students work a minimum of 150 hours per quarter and maintain a logbook of hours, experiences, and recipes.

CHRM 2996 Apprenticeship Practicum 6 **0.0 – 15.0 – 3.0**
Prerequisite(s): (1) CHRM 2995
The practica are special cooperative educational experiences set up with the College and approved chefs. Students work a minimum of 150 hours per quarter and maintain a logbook of hours, experiences, and recipes.

CHRM 2997 Apprenticeship Practicum 7 **0.0 – 15.0 – 3.0**
Prerequisite(s): (1) CHRM 2996
The practica are special cooperative educational experiences set up with the College and approved chefs. This course should focus on garde manger and buffet skills. Students work a minimum of 150 hours per quarter and maintain a logbook of hours, experiences, and recipes.

CHRM 2998 Apprenticeship Practicum 8 **0.0 – 15.0 – 3.0**
Prerequisite(s): (1) CHRM 2997
The practica are special cooperative educational experiences set up with the College and approved chefs. This course should focus on gourmet à la carte cookery in a fine dining setting. Students work a minimum of 150 hours per quarter and maintain a logbook of hours, experiences, and recipes.

CHRM 2999 Portfolio Development for Culinarians **0.0 – 10 – 2.0**
Prerequisite(s): (2) all Culinary Arts or Culinology™ program option classes are completed or in progress and instructor approval
All skills gained throughout the Culinary Arts or Culinology curriculum are documented 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 of Applied Science Degree.

Dental Assisting (DENT)

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. 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 is also covered in this course.

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. Areas covered include appointment control, recall programs, collections, letter writing, filing systems, recording fees charged and paid, dental payment plans, prepaid dental care plans, inventory control, purchasing, and disbursements.

DENT 1100 Dental Anatomy **4.0 – 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(s): (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. Included is an introduction to common abnormalities of the teeth and supporting structures, the oral symptoms of systemic diseases, and the principles of disease transmission.

DENT 1160 Dental Pharmacology **2.0 – 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 is designed to give students information on the composition and manipulation of materials used in restorative dentistry such as cements, amalgam, composites, glass ionomers, synthetic resins, temporary restorations, and metals. Other materials such as waxes, impression materials, and gypsums are covered. The students trim models, polish appliances, and fabricate custom trays, bleaching trays, mouth guards, and temporary crowns and bridges. Placement and removal of periodontal dressings and temporary crowns are also covered.

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(s): (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(s): (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 students to dental film types, anatomical landmarks, mounting of films, generation of x-rays, manual film processing, and intraoral paralleling techniques.

DENT 1320 Dental Radiology II 3.0 – 3.0 – 4.0
Prerequisite(s): (1) DENT 1310
This course provides instruction in accessory radiographic techniques, patient management, technique error identification, automatic film processing, and preliminary film interpretation. Also included are radiation biology, patient protection, operator protection, and extraoral radiography.

DENT 1350 Chairside Assisting I 3.0 – 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. Oral diagnosis with a focus on patient records including medical and dental histories and charting of a dental patient is covered.

DENT 1360 Chairside Assisting II 3.0 – 3.0 – 4.0
Prerequisite(s): (1) DENT 1350
This course includes a detailed study and practical application of maintaining the operating field, rubber dam, oral inspection, 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(s): (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
Dental Assisting students are assigned to assist junior and senior students at Creighton University Dental College. Assignments include the areas of oral diagnosis, radiology, oral surgery, periodontics, endodontics, fixed and removable prosthodontics, orthodontics, pediatric dentistry, and operative dentistry. (The course meets for four weeks.)

DENT 1992 Clinical Experience II 0.0 – 24.0 – 8.0
Prerequisite(s): (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(s): (1) DENT 1991
This course combines the sharing of Dental Assisting students' clinical experiences from DENT 1992 Clinical Experience II. OSHA and dental assisting as a profession are reviewed, and employment and legal and ethical issues of the dental profession are discussed.

Diesel Technology (DESL)

DESL 1000 Diesel Preventative Maintenance 1.0 – 6.0 – 3.0
Students learn the basic shop tools, equipment, and practices to start a career in diesel technology. The basics of truck and equipment preventative maintenance and inspecting are studied.

DESL 1110 Diesel Engine Fuel Systems 2.0 – 3.0 – 3.0
Prerequisite(s): (1) DESL 1230
Fuel injection principles are covered in this course. Diesel fuel pumps, nozzles and hydraulic and electronic injectors are also studied.

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
The basic principles of hydraulic systems and component identification are covered in this course. 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 is designed to help students gain an understanding of diesel engine electricity and electronic application for heavy equipment and on-site power generation. Theory, operation, and testing of common systems are investigated with hands-on trainers and live work.

DESL 1220 Advanced Diesel Hydraulics 5.0 – 3.0 – 6.0
Prerequisite(s): (1) DESL 1200
Students study hydraulic systems that are used on heavy equipment, which 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
Diesel engine principles and component identification are studied 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(s): (4) 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 (DAC) 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. Students prepare to pass the required general knowledge, combination vehicle, air brake, and pre-trip inspection CDL written exams (valid for six months) at the DMV. The general knowledge exam allows students to obtain the CDL learning permit (valid for six months), which is necessary to complete the CDL for Diesel Technicians II. This beginning training course is the first of a two-part series and is classroom lecture only.

DESL 1302 CDL for Diesel Technicians II 0.0 – 4.0 – 1.5
Prerequisite(s): (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 course completes the study begun in DESL 1301 with behind-the-wheel training that is conducted in four weeks. This accelerated training includes instruction and participation in safely driving and backing a Class A vehicle. This training prepares students to take the Department of Motor Vehicles CDL Driving and Basic Skills exam with air brakes. Upon successfully obtaining a CDL license, students qualify to operate a Class A commercial vehicle. This final training course is lab only.

DESL 1310 Truck Driver CDL Training I 5.5 – 9.0 – 8.5
Prerequisite(s): (7) possess a valid driver's license, complete and pass a DOT physical and pass a drug screen two weeks prior to the first day of class, submit current DMV driving record within 60 days, score above 60 in reading on the COMPASS evaluation, complete a background information sheet, interview with the instructor, and obtain instructor approval
This introduction into CDL training provides students with the basics needed for all non-vehicle activities necessary to obtain employment by major transportation companies. Students are prepared to pass the CDL written exams necessary to obtain a CDL learner's permit.

DESL 1312 Beginning Class B CDL Training 5.5 – 9.0 – 8.5
Prerequisite(s): (1) DOT required physical exam and drug screening
This introduction into training covers the basic study requirements for non-vehicle activities in CDL (Commercial Driver's License) training in addition to preparing for the required backing and vehicle inspection skills. Topics include safe driving, vehicle inspections and components, all CDL endorsements except school bus, control (shifting, driving, and backing), cargo handling, understanding FMCS regulations, trip planning, employer-employee relations, customer relations, and map reading. This program is designed to prepare students to complete the required Class B CDL written tests at the DMV and receive their learner's permit.

DESL 1320 Truck Driver CDL Training II 4.0 – 16 – 9.0
Prerequisite(s): (3) DESL 1310, possession of a CDL learner's permit, and possession of a valid driver's license
Co-requisite(s): (1) HLTH 1010
During this advanced stage, training includes instruction and hands-on experience in safely driving and backing a Class A combination vehicle. Students complete HLTH 1010 while attending the DESL 1320 course. Students also participate in a professional defensive driving course and have the opportunity to drive at night and on short road trips. This course prepares students to take the Department of Motor Vehicles CDL exam, which upon passing qualifies students to operate a Class A commercial vehicle.

DESL 1322 Advanced Class B CDL Training **6.0 – 10 – 9.0**
Prerequisite(s): (2) DESL 1312 and possession of a CDL learner's permit
This course covers advanced CDL (Commercial Driver's License) training. Topics include safe driving, vehicle inspections and components, control (shifting, driving, and backing), trip planning, and CPR-first aid training. Upon successful completion of this program, students receive a certificate of completion and are qualified to test at the DMV (Department of Motor Vehicles) for a CDL Class B license. Upon successful testing at the DMV, students are issued a CDL Class B license with necessary endorsements from the DMV and qualify for employment in the truck driving career as an entry-level driver.

DESL 1620 Climate Control/Heating and Air Conditioning **2.0 – 6.0 – 4.0**
Prerequisite(s): (1) DESL 1210
Diesel heating, air conditioning, and support systems are covered in-depth. Troubleshooting and repair is done 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 in this course.

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**
ABS systems on both medium- and heavy-duty trucks are studied, analyzed, and repaired in this course with laboratory professional presentation. Students learn to repair, rebuild, and maintain air brake systems through laboratory experience 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(s): (2) DESL 1210 or verifiable experience and DESL 1110
Students learn advanced technology engine electronics theory and diagnosis and repair of engine control systems. The most common recent diesel engine brands are studied in a professional laboratory setting.

DESL 2215 Diesel Generator Controls **2.0 – 3.0 – 3.0**
Prerequisite(s): (3) DESL 1010, 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(s): (3) DESL 1110, DESL 1230, and DESL 2210
In this course, 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(s): (1) DESL 1230 or verifiable experience
In this course, 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(s): (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(s): (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 – 120.0 – 6.0**
Prerequisite(s): (2) DESL 1320 and application approved by program faculty
This course gives students an opportunity to review with an MCC CDL instructor the driving skills learned during the students' first weeks of employment. This also allows for additional instruction by an MCC CDL instructor if required. Students must complete at least 240 hours of instruction with a mentor in order to receive credit for this course. Application for On-the-Job Training/Work Externship must be approved by the program faculty.

DESL 2981 Diesel Internship I **0.0 – 320.0 – 8.0**
Prerequisite(s): (1) instructor approval
This internship gives students the needed experience to advance their skills while working with a qualified mentor in a diesel repair shop or dealership. The experience provides students the opportunity to practice their skills in real-life work situations. Applications for internships must be approved by program faculty.

DESL 2982 Diesel Internship II **0.0 – 320.0 – 8.0**
Prerequisite(s): (2) DESL 2981 and instructor approval
Co-requisite(s): (1) 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 must be taken concurrently or previously completed.

DESL 2983 Diesel Internship III **0.0 – 160.0 – 4.0**
Prerequisite(s): (1) instructor approval
This internship gives students a real experience in the diesel trade and is designed to solidly instill previously learned college classroom material while opening future employment opportunities.

DESL 2984 Diesel Internship IV **0.0 – 160.0 – 4.0**
Prerequisite(s): (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.

DRAF
– See Mechanical Design Technology

Early Childhood Educator (ECED)

ECED 1050 Expressive Arts **4.5 – 0.0 – 4.5**
Selection, construction, and use of materials, activities, and experiences that encourage the young child's creativity and aesthetic appreciation through the visual arts, music, body movement, and dramatic play are studied. Curriculum is designed for three to eight years of age.

ECED 1060 Observation, Assessment, and Guidance **4.5 – 0.0 – 4.5**
This course introduces a variety of observation, assessment, and guidance strategies used in early childhood education settings birth through age eight.

ECED 1110 Infant 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. Planning curriculum in the domains of physical growth and motor skills, cognition, language, and social and emotional development is examined.

ECED 1120 Preschool Child Development **3.0 – 0.0 – 3.0**
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 and emotional development.

ECED 1150 Introduction to Early Childhood Education **4.5 – 0.0 – 4.5**
The course is an overview of early childhood education, history, and trends. The philosophies of various programs, diversity, inclusion, licensing standards, current legislation, professionalism, and advocacy are examined.

ECED 1160 Early Language and Literacy **4.5 – 0.0 – 4.5**
Prerequisite(s): (2) ECED 1110, ECED 1120, or ECED 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: It is highly recommended that students be eligible for English Level I prior to enrolling in this course.

ECED 1220 Prepracticum **1.5 – 0.0 – 1.5**
This course is designed to provide 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.

ECED 1221 Infant and Toddler Practicum **0.0 – 9.0 – 3.0**
Prerequisite(s): (4) ECED 1150, ECED 1060, ECED 1110, and ECED 1220
Students experience working with infants and toddlers (six weeks through two years of age) in the community on a weekly basis and become familiar with the daily routine of programs serving these ages. Basic skills include developmentally appropriate interactions, supporting caregiver plans, and fostering children's development. Students spend 45 hours with infants and 45 hours with toddlers and plan a few experiences appropriate for this age group.

NOTE: Students enrolling in the ECED practica should register through the Early Childhood Practicum website at www.mccneb.edu/ecp.

ECED 1230 School-Age Child Development **3.0 – 0.0 – 3.0**
This course focuses on typical and atypical development of the child ages five through twelve years in the domains of physical growth and motor skills, cognition and language, and social and emotional development.

ECED 1240 Preschool- and School-Age Practicum **0.0 – 9.0 – 3.0**

Prerequisite(s): (4) ECED 1110, ECED 1120, ECED 1050, and ECED 1221

Co-requisite(s): (1) ECED 1230

Students experience working with preschool- and school-age children in the community on a weekly basis and become familiar with the daily routine of programs serving these ages. Basic skills include developmentally appropriate interactions, supporting caregiver plans, and fostering 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.

NOTE: The co-requisite ECED 1230 must be taken concurrently or previously completed. Students enrolling in the ECED practica should register through the Early Childhood Practicum website at www.mccneb.edu/ecp.

ECED 1260 Children's Health and Nutrition **4.5 – 0.0 – 4.5**

In this course, 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. An in-depth analysis is made of the infectious process and effective control of communicable diseases and acute illness found in the early childhood years and settings. Safety management and the handling of child abuse and neglect are examined. Students learn appropriate nutritional guidelines and practices for planning meals and snacks in the classroom.

ECED 2050 Children with Exceptionalities **4.5 – 0.0 – 4.5**

Prerequisite(s): (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.

ECED 2060 Early Childhood Education Curriculum Planning **4.5 – 0.0 – 4.5**

Prerequisite(s): (3) ECED 1240, ECED 1150, and ECED 1160

This course prepares students to plan a developmentally appropriate curriculum and environments for children ages three to eight years of age. Topics include writing goals and objectives, lesson plans, daily schedules, working with parents, and inclusionary practices.

ECED 2070 Family and Community Relationships **4.5 – 0.0 – 4.5**

Prerequisite(s): (1) completion of all first-year courses as stated in the College catalog

This course focuses on the development of skills, techniques, and attitudes needed to form successful collaborations with diverse families and communities.

ECED 2080 Advanced Child Development **4.5 – 0.0 – 4.5**

Prerequisite(s): (2) ECED 1110, ECED 1120, ECED 1230, or PSYC 1130

In this course, students receive an in-depth study of the whole child. An examination of the following is made: factors that impact on the development of the child, research methods utilized to acquire such data, and developmental changes that occur in each level and stage of childhood. Study is focused on the domains of physical, social, emotional, and cognitive development in infancy, toddlerhood, early childhood, middle childhood, and adolescence. An analysis of the theories explaining such development is also made. Students are required to do observation in a variety of settings.

ECED 2090 Early Childhood Student Teaching Practicum **0.0 – 18.0 – 6.0**

Prerequisite(s): (4) ECED 2080, 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.

NOTE: Students enrolling in the ECED practica should register through the Early Childhood Practicum website at www.mccneb.edu/ecp.

ECED 2095 Current Topics in Early Childhood Education **4.5 – 0.0 – 4.5**

Prerequisite(s): (1) completion of 15.0 ECED credit hours as stated in the College catalog

Students investigate current topics of interest to early childhood professionals. They select articles and provide written and oral critiques. Students also develop a professional portfolio that demonstrates their competencies.

ECED 2450 Administration of Early Childhood Education Programs **4.5 – 0.0 – 4.5**

Prerequisite(s): (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. Policymaking, record keeping, staff management and training, supervision, budgeting, hiring, and dismissal of staff procedures are analyzed. In addition, program management of spatial resources, health and safety programs, foodservice operations, parent relations, and future trends in the operation of early childhood settings are explored.

ECED 2900 Special Topics in 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.

Economics (ECON)

ECON 1000 Macroeconomics **4.5 – 0.0 – 4.5**
Theories of employment, national income, inflation, and economic growth are explored. Topics include income theories, savings and investment, business fluctuations, inflation, growth theories, and monetary and fiscal policies.

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. The revenue, costs, output, and prices for each market structure are determined along with the social implications of each market form. In addition, various social issues such as consumer choice, pollution, healthcare, public works projects, and poverty transfer programs are analyzed using the microeconomic principles of elasticity, benefit 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(s): (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. The management of multi-national firms is studied 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(s): (1) instructor approval
This course permits instruction in special content areas not included in other Economics courses.

Education (EDUC)

EDUC 0090 Math Praxis Tutorial **1.0 – 0.0 – 1.0**
This course prepares students for the Praxis 1/PPST: 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/PPST: 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/PPST: Pre-Professional Skills Writing Test, necessary for students entering a teacher education program. Students conduct self-paced practice tests and learning activities.

EDUC 1010 Introduction to Professional Education **4.0 – 1.5 – 4.5**
This course combines academic inquiry into the dynamics that exist between school and society with a field experience in public schools. This course is inherently foundational, in that it includes units such as the history and philosophy of education. The state of Nebraska mandates a minimum of 100 hours in field experience prior to student teaching. The design of EDUC 1010 incorporates a minimum of 25 hours of early field experience in a public school setting through partner schools designated by neighboring public school systems.

NOTE: Because there is strong emphasis on the writing component, including research, it is highly recommended that ENGL 1010 and ENGL 1020 be completed prior to registering for this course.

EDUC 2010 Human Growth and Learning **4.5 – 0.0 – 4.5**
Prerequisite(s): (4) application and admission into the program, successfully complete the PPST, EDUC 2020, and EDUC 2030
This course focuses on the growth, development, and learning processes of the individual from conception through adolescence. The class emphasizes how current educational practices and theories of development and learning impact and influence each other. Students investigate how physical and emotional development of children and teens impact their cognitive growth. Students apply their knowledge to field observations and laboratory experiences in order to adequately internalize and transfer the course content to the teaching environment.

EDUC 2020 Educational Foundations **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) application and admission into the program
This course provides candidates with the philosophical, historical, and social foundations background that enables them 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. Candidates study and understand the national and state standards relevant to K-12 education and teacher preparation in the United States. Candidates acquire competency in using education technologies such as Internet-based course delivery systems, database software, and digital portfolios. 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**
Prerequisite(s): (1) application and admission into the program
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. Special emphasis is placed on skill development and the training of pre-service teachers to be effective orchestrators of the learning environment, which helps to ensure the performance assessment of teacher candidates.

Electrical Apprenticeship (ELAP)

ELAP 1110 Electrical IA **7.0 – 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(s): (1) ELAP 1110
This course continues with the electrical fundamentals from Electrical IA, and apprentices are introduced 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(s): (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 (NEC).

ELAP 1220 Electrical IIB **7.0 – 0.0 – 7.0**
Prerequisite(s): (1) ELAP 1210
This course is an introduction to the layout and construction of residential electrical systems. Emphasis is on the National Electrical Code (NEC) 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(s): (1) ELAP 1220
This course is an introduction to the design and construction of commercial electrical systems. Emphasis is placed on National Electrical Code (NEC) as it relates to commercial electrical systems.

ELAP 2320 Electrical IIIB **7.0 – 0.0 – 7.0**
Prerequisite(s): (1) ELAP 2310
This course continues on from where Electrical IIIA left off. 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(s): (1) ELAP 2320
This course deals with motor control circuits and electrical devices used in commercial electrical systems. Apprentices use the National Electrical Code (NEC) to properly size branch circuit and feeder conductors and over-current protection for motors.

ELAP 2420 Electrical IVB **7.0 – 0.0 – 7.0**
Prerequisite(s): (1) ELAP 2410
This course is a continuation of Electrical IVA. Apprentices use the National Electrical Code (NEC) 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 (NEC), emphasizing the calculations used in the code so that students are prepared to successfully complete the journeyman electrician or electrical contractor's exams.

Electrical Technology (ELTR)

ELTR 1200 Basic Electricity **6.0 – 1.5 – 6.5**
This course includes an introduction to electrical theory and series and parallel circuits. Areas of emphasis are alternating current, Ohm's Law, meters, grounding, preview of the National Electric Code (NEC), troubleshooting, and repair.

ELTR 1210 Residential Wiring **9.0 – 0.0 – 9.0**
Prerequisite(s): (1) ELTR 1200
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 (NEC) standards.

ELTR 1220 Commercial Wiring **9.0 – 0.0 – 9.0**
Prerequisite(s): (2) ELTR 1200 and ELTR 1210
This course includes the study of branch circuits, wiring methods, and application of the National Electrical Code (NEC). 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(s): (2) INCT 1212 and ELTR 1220 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(s): (4) ELTR 1200, ELTR 1210, ELTR 1220, and INCT 1212
This course is designed to give 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(s): (3) ELTR 1200, ELTR 1210, and ELTR 1220
This course is designed to train students to properly use the National Electrical Code (NEC).

ELTR 2331 Electric Service and Installation 4.5 – 0.0 – 4.5
Prerequisite(s): (2) ELTR 1220 and ELTR 2240
This course is designed to give students an understanding of the electric service, system transformers, and the principals 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 Variable
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.

Electronic Imaging and Media Arts (EIMA)

EIMA 1100 Raster Image Painting 3.5 – 3.0 – 4.5
This foundation course focuses on the visual and technical aspects of raster image painting applications. Students acquire a basic understanding of computer graphics tool and menu functions and computer graphics vocabulary. They learn a raster software application through a series of exercises and projects that provoke and explore creative problem solving while applying drawing and design theory and principles. Basic principles of 2-D animation are also introduced and explored. Corel Painter is the primary software; Adobe Photoshop and Illustrator and QuickTime are incorporated; and Dreamweaver is introduced.

EIMA 1110 Vector Image Drawing 3.5 – 3.0 – 4.5
This foundation course focuses on the visual and technical processes of vector (resolution independent) applications and includes experience with raster/bitmap software. Students learn a vector (resolution independent) software application through a series of exercises and projects that provoke and explore creative problem solving while applying graphic design theory and principles. Adobe Illustrator is the primary software; Adobe Photoshop, Corel Painter, and other software programs are incorporated and/or introduced.

EIMA 1111 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.

EIMA 1120 Character, Narrative, and Storyboard Development 3.5 – 3.0 – 4.5
Prerequisite(s): (1) ARTS 1010
The basic principles of film structure and animation are explored through observation, concept and narrative development, character design, and storyboard creation. Emphasis is on the practice of drawing as a communication process to visualize stories that work as strong animation. Collaboration, brainstorming, presentation, and critiques are central activities.

EIMA 1130 Web Media I 3.5 – 3.0 – 4.5
Prerequisite(s): (1) EIMA 1110
This course immerses students in the development of basic competency and skill creating web page designs using WYSWYG and HTML/XHTML operations while emphasizing skills in design, organization, and creative problem solving. Students design and construct web pages using current industry standard web applications such as Dreamweaver and Fireworks and supporting languages and graphic applications including Adobe Photoshop and Adobe Illustrator. Advancements such as HTML5 may also be introduced.

EIMA 1140 Drawing for Electronic Media 3.5 – 3.0 – 4.5
Prerequisite(s): (1) EIMA 1100 or EIMA 1110
This course emphasizes the concepts and processes involved with drawing directly into the computer. The primary medium is drawing with a digitizing pen and pad using bitmap and vector software programs; however, traditional drawing materials are integrated. Form and space are explored through direct and indirect observation, including studies involving the human figure. Drawing the human form in space prepares students for sequential art and animation, and it develops basic drawing skills on the computer.

EIMA 1150 Design for Motion Graphics 3.5 – 3.0 – 4.5
Students explore visual design concepts related to motion graphics using primarily Adobe Photoshop and After Effects to compose still images and live-action video and animation for television, film, and new media. This course provides students with the necessary technical software applications to produce title sequences, station identification, key-frame animation, and info-graphics.

EIMA 1210 Flash I 3.5 – 3.0 – 4.5
Prerequisite(s): (1) EIMA 1110
Students explore features of Adobe Flash software. Design elements and principles are applied to graphics, animation, and interactive objects using Flash as a medium.

EIMA 1221 Game Design Fundamentals 3.5 – 3.0 – 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.

EIMA 1230 2-D Animation and Compositing I 3.5 – 3.0 – 4.5
Prerequisite(s): (1) EIMA 1120
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.

EIMA 1231 2-D Animation and Compositing II 3.5 – 3.0 – 4.5
Prerequisite(s): (1) EIMA 1230
Students create original 2-D animation focusing on character and story development. Building on skills acquired in EIMA 1230, 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 After Effects as well as QuickTime and Photoshop.

EIMA 1310 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. Techniques of 3-D model execution and scene design with light and camera placement are practiced and examined.

NOTE: It is advisable for students to take EIMA 1100 or EIMA 1110 before EIMA 1310 in order to develop computer skills.

EIMA 2120 Electronic Illustration 3.5 – 3.0 – 4.5
Prerequisite(s): (1) EIMA 1110 or PHOT 1210
Advanced illustration concepts and techniques are explored through vector software such as Adobe Illustrator. Adobe Photoshop is also incorporated. Concept development and personal style is the main emphasis along with demonstrations of computer techniques. Output is both print form and animation.

NOTE: Prior experience with bitmap or vector software is necessary.

EIMA 2131 Web Media II 3.5 – 3.0 – 4.5
Prerequisite(s): (1) EIMA 1130
This course provides students with advanced competency and skill creating web page designs using WYSWYG and HTML/XHTML operations. Students design and construct web pages using current industry standard web applications such as Dreamweaver and Fireworks and supporting applications such as Adobe Photoshop and Adobe Illustrator. Further emphasis is placed on developing skills in design, organization, and creative problem solving.

EIMA 2210 Flash II 3.5 – 3.0 – 4.5
Prerequisite(s): (1) EIMA 1210
This course is a continuation of EIMA 1210 with more complex interactive projects that present new challenges such as ActionScript and variable dynamic applications.

EIMA 2221 Introduction to 3-D Game Development 3.5 – 3.0 – 4.5
Prerequisite(s): (1) EIMA 1221
This course introduces 3-D game development software and implements the concepts of EIMA 1221 Game Design Fundamentals. Students learn how to create a basic 3-D game.

EIMA 2311 3-D Character Development 3.5 – 3.0 – 4.5
Prerequisite(s): (1) EIMA 1310
This course builds on the introductory topics presented in EIMA 1310 with an exploration of the techniques of modeling, material definition, and animation that are the foundation of 3-D graphics for motion pictures or games. It emphasizes the development of 3-D characters, materials, and motion control. An animated character is presented at the conclusion of the course.

EIMA 2321 Intermediate 3-D Modeling and Animation 3.5 – 3.0 – 4.5
Prerequisite(s): (1) EIMA 1310
This course builds on the topics presented in EIMA 1310 with explorations of the techniques of modeling, material definition, and animation that are the foundation of 3-D graphics for motion pictures. It emphasizes the further development of 3-D modeling techniques with more advanced lights and materials.

EIMA 2330 3-D Animation Lab 3.5 – 3.0 – 4.5
Prerequisite(s): (2) EIMA 1120 and EIMA 2310 or EIMA 2321
This course requires an animation project that offers students an opportunity to build upon and integrate existing technical skills, share ideas with students from diverse animation disciplines, and produce a more complex project. A short finished animation is presented at the conclusion.

EIMA 2410 Projects Development 3.5 – 3.0 – 4.5
Prerequisite(s): (1) instructor approval
This course is a capstone experience for the students completing the Electronic Imaging and Media Arts program. The primary activity of the course is the students' amalgamations of technical and aesthetic accomplishment into projects that are representative of individual achievement and principal to the students' portfolios.

NOTE: EIMA 2410 must be taken as the last class of the Electronic Imaging and Media Arts program.

EIMA 2900 Special Topics in EIMA Variable
Prerequisite(s): (1) EIMA 2110
This course permits instruction in special content areas not included in other courses of the Electronic Imaging and Media Arts program.

EIMA 2981 Internship Variable
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. To develop an internship to meet their academic and career goals, interested students must contact the program faculty. Based on state guidelines, students must complete 40 hours of work for each credit hour in this course.

Electronics Technology (ELEC)

ELEC 1000 Basic Electricity/Electronics 9.0 – 0.0 – 9.0
Students conduct a study of basic DC circuits, AC circuits, diode operation, and power supply construction. Emphasis on 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 is stressed.

ELEC 1010 Electronic Devices/Digital Circuits 9.0 – 0.0 – 9.0
Prerequisite(s): (1) ELEC 1000
Students conduct a study of semiconductor devices, semiconductor circuits, digital devices, and digital circuits. Emphasis is on theoretical application to actual circuit operation and assembly with use of normal bench test equipment, digital multimeter, oscilloscope, function generator, and DC/AC power supply.

ELEC 1100 IT Essentials PC Repair I 4.5 – 0.0 – 4.5
This course presents 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 troubleshoot hardware and software problems. This course helps prepare for the CompTIA A+ certification.

ELEC 1110 IT Essentials PC Repair II 4.5 – 0.0 – 4.5
Prerequisite(s): (1) ELEC 1100
This course is an intensive introduction to networking fundamentals and multiuser/multitasking network operating systems. Characteristics of the Linux and Windows network operating systems are discussed. Students explore a variety of topics including installation and configuration procedures and more advanced administrative tasks such as troubleshooting, security, and remote access issues. This course further prepares students for the CompTIA A+ certification.

ELEC 1120 Network Electronics 4.5 – 0.0 – 4.5
Prerequisite(s): (1) ELEC 1100 or INFO 2135
This is a hands-on course concentrating on the installation and maintenance of network hardware components. Routers, switches, hubs, and wireless hardware are covered. Other network hardware/software is covered, as well as network cabling and wireless characteristics and installation.

ELEC 1200 Cisco Network Fundamentals 9.0 – 0.0 – 9.0
This is the first of four courses offered by MCC's Cisco Networking Academy Program, which prepares students to take the globally recognized Cisco Certified Network Associate (CCNA) examination. 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(s): (1) ELEC 1200
This is the second of four courses offered by MCC's Cisco Networking Academy Program, which prepares students to take the globally recognized Cisco Certified Network Associate examination. The goal of this course is to develop an understanding of how a router learns about remote networks and determines the best path to those networks. This course includes both static routines 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 RFID 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(s): (1) ELEC 1210
This is the third of four courses offered at MCC's Cisco Networking Academy Program, which prepares students to take the globally recognized Cisco Certified Network Associate examination. The goal of this course is to develop an understanding of how switches are interconnected and configured to provide network access to Local Area Network (LAN) users. This course also teaches how to integrate wireless devices into a LAN.

ELEC 2225 CCNA Security 4.5 – 0.0 – 4.5
Prerequisite(s): (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(s): (1) ELEC 2220
This is the fourth of four courses offered by MCC's Cisco Networking Academy Program, which prepares students to take the globally recognized Cisco Certified Network Associate examination. The goal of this course is to introduce students to fundamental WAN concepts and technologies.

ELEC 2900 Special Topics in Electronics Variable
Prerequisite(s): (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(s): (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 in this class.

Engineering (ENGR)

ENGR 1010 Introduction to Engineering Design 4.5 – 0.0 – 4.5
This course is an introduction to the engineering profession, engineering problem solving, and engineering design with an emphasis on current topics. Course material is presented 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 College of Engineering for direct transfer into their engineering program.

ENGR 1020 MATLAB Programming 4.5 – 0.0 – 4.5
Prerequisite(s): (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. Easy creation of scientific and engineering graphics are also included, which make it 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 College of Engineering for direct transfer into their engineering program.

ENGR 1050 Introduction to Engineering 3.0 – 0.0 – 3.0
Introduction to Engineering 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. In this course, students are introduced to both and study such topics as lettering, orthographics, sections, dimensions, descriptive geometry, revolutions, and graphics.

ENGR 2010 Elements of Electrical Engineering I **4.5 – 0.0 – 4.5**
Prerequisite(s): (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 is designed so students learn the fundamental concepts of DC and AC circuit analysis using basic concepts, basic methods and circuits to filter and amplify signals, basic methods of digital signals, and accompanying mathematics associated with transformers, motors, and power systems.

NOTE: ENGR 1010, 1020, 2010, and 2020 are part of a partnership between MCC and the University of Nebraska–Lincoln College of Engineering for direct transfer into their engineering program.

ENGR 2020 Engineering Statics **4.5 – 0.0 – 4.5**
Prerequisite(s): (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. The course topics include an introduction to the fundamental principles of statics; strength of materials; translational and rotational equilibrium problems; moments of inertia; vector product of forces; centroids; simple structures, frames, and trusses; and wedges, screws, bearings, and belts.

NOTE: ENGR 1010, 1020, 2010, and 2020 are part of a partnership between MCC and the University of Nebraska–Lincoln College of Engineering for direct transfer into their engineering program.

English (ENGL)

ENGL 0950 Reading and Responding **4.5 – 0.0 – 4.5**
Prerequisite(s): (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. Vocabulary development and grammar are addressed in the context of student writing and speaking.

ENGL 0960 Fundamentals of College Writing **6.0 – 0.0 – 6.0**
Prerequisite(s): (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(s): (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(s): (1) ENGL 1010
Students further develop the skills learned in ENGL 1010 as they interpret, synthesize, and organize primary and secondary sources of information for the purpose of composing a research report. This is a Level II class.

ENGL 1210 Applied Communications **4.5 – 0.0 – 4.5**
Prerequisite(s): (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(s): (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(s): (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 résumés that reflect considerations of writer intent and reader response. Appropriate organization and format are stressed, as are 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(s): (1) ENGL 1220 or ENGL 1230
Students who complete either Technical Writing or Business Writing continue to learn how to prepare and deliver reports using primary and secondary research. Integral to this course are the students' abilities to recognize problems and determine causes, propose solutions, evaluate various courses of action, and present this information in written and oral reports. This is a Level II class.

ENGL 1310 Creative Writing 4.5 – 0.0 – 4.5
Prerequisite(s): (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(s): (1) ENGL 1010
To introduce students to processes and resources for professional publication of literary writing, Introduction to Publication places students into the complementary roles of editors and writers and guides them through two instructive publishing projects. As editors, students participate in the process of producing a college literary magazine. As writers, students employ standard writing and research techniques and their knowledge of the editorial process to prepare their own works for submission to reputable publications.

ENGL 2210 Grant Writing 4.5 – 0.0 – 4.5
Prerequisite(s): (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(s): (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(s): (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(s): (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(s): (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(s): (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 works. (Cross-listed as THEA 2481)

ENGL 2490 Introduction to Latin American Literature 4.5 – 0.0 – 4.5
Prerequisite(s): (1) ENGL 1020
This course provides an overview of major influential Latin American writers and the contemporary and historical issues raised by their works. This course can be taken as an English or a Spanish course.

ENGL 2510 American Literature I 4.5 – 0.0 – 4.5
Prerequisite(s): (1) ENGL 1020 or ENGL 1240
American literature from 1600 to the Civil War is studied through the themes, works, and writers of that period.

ENGL 2520 American Literature II 4.5 – 0.0 – 4.5
Prerequisite(s): (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(s): (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(s): (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(s): (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(s): (1) ENGL 1020 or ENGL 1240
Literary studies not covered by other courses may be offered, depending upon interest. Past topics have included dramatic literature, detective fiction, African-American literature, and the writings of a particular author.

ENGL 2901 Special Topics in Writing 4.5 – 0.0 – 4.5
Prerequisite(s): varies based on topic of course; instructor approval also accepted
Advanced writing studies not covered in other English courses may be offered depending on interest. Writing may include advanced composition, advanced poetry writing, or advanced fiction writing, among others.

English-as-a-Second Language (ESLX)

ESLX 0100 English-as-a-Second Language I 6.0 – 0.0 – 6.0
Prerequisite(s): (1) assessment testing
This course focuses on fundamental grammatical structures and speaking and listening skills.

ESLX 0110 English-as-a-Second Language II 6.0 – 0.0 – 6.0
Prerequisite(s): (1) ESLX 0100
This course, designed for high-beginning or low-intermediate ESL students, focuses on fundamental grammatical structures and provides opportunities to develop speaking and listening skills.

ESLX 0120 English-as-a-Second Language III 6.0 – 0.0 – 6.0
Prerequisite(s): (1) ESLX 0110 or placement testing
This course focuses on developing functional communication, grammatical accuracy in speaking, writing, and vocabulary building.

ESLX 0130 English-as-a-Second Language IV 6.0 – 0.0 – 6.0
Prerequisite(s): (1) ESLX 0210
This course, a continuation of ESLX 0120, reinforces and expands grammatical accuracy in speaking and writing.

ESLX 0140 English-as-a-Second Language V 6.0 – 0.0 – 6.0
Prerequisite(s): (1) ESLX 0130
This intermediate-level course continues to emphasize functional communication and grammatical correctness in speaking, writing, and vocabulary building.

ESLX 0141 English-as-a-Second Language VI 6.0 – 0.0 – 6.0
Prerequisite(s): (1) ESLX 0215 or placement testing
This advanced-level course focuses on intensive development of all basic language competency skills and expands grammatical correctness in speaking as well as writing skills.

ESLX 0142 English-as-a-Second Language VII 6.0 – 0.0 – 6.0
Prerequisite(s): (1) ESLX 0141 or writing sample
This advanced course continues to focus on all basic language competency skills.

ESLX 0210 Writing Skills for ESL I 6.0 – 0.0 – 6.0
Prerequisite(s): (1) ESLX 0120 or writing sample
In this introductory writing course, low-intermediate ESL students apply their knowledge of basic sentence structures to the development of well-written paragraphs.

ESLX 0215 Writing Skills for ESL II 6.0 – 0.0 – 6.0
Prerequisite(s): (1) ESLX 0140 or writing sample
This course helps students develop reading skills, increase their vocabulary, and improve their writing skills by applying knowledge of intermediate-level sentence structures.

ESLX 0220 Writing Skills for ESL III 6.0 – 0.0 – 6.0
Prerequisite(s): (1) ESLX 0142 or writing sample
This advanced course provides intensive practice in writing American English and helps students recognize grammatical problems, expand their written vocabulary, and prepare for the transition to ENGL 0950 or ENGL 1010.

ESLX 0310 Conversational English I 6.0 – 0.0 – 6.0
Prerequisite(s): (1) ESLX 0120 or higher
This course focuses on developing basic communication skills through listening, vocabulary development, role playing, oral presentations, and class discussions.

ESLX 0311 Conversational English II 6.0 – 0.0 – 6.0
Prerequisite(s): (1) ESLX 0140 or higher
This course continues to focus on reinforcing and expanding basic communication skills through video viewing, role playing, group discussions, and oral presentations. It provides opportunities for functional use of English within the context of everyday life in North American culture.

ESLX 1000 Medical English for ESL Healthcare Professionals 4.5 – 0.0 – 4.5
Prerequisite(s): (4) certificate or diploma in healthcare-related field, ESLX 0220, ESLX 0142, and advisor recommendation; or assessment testing in lieu of courses and advisor recommendation
This course is designed for non-native English speakers with previous healthcare training who seek to enter a U.S. health education program. The purpose of this course is to prepare students for communicating in English in academic and professional environments in the context of North American healthcare. The focus of the course is language; the context is the culture and context of 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.

Entrepreneurship (ENTR)

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.

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 2055 Search Engine Marketing **2.0 – 0.0 – 2.0**
This course addresses how to target advertising to the right audience via the Internet using Google. Both new students and advanced marketers develop skills in search engine marketing techniques. Focus includes AdWords, banners, video spots, mobile and business maps, and using metric results to make budget decisions and measure return on investment (ROI).

ENTR 2060 Legal Issues for the Entrepreneur **4.5 – 0.0 – 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, 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**
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(s): (2) ENTR 1050 and ENTR 1060 or ENTR 1050 and ENTR 2040
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(s): (1) instructor approval
This course permits instruction in special content areas not included in other Entrepreneurship courses.

ENTR 2981 Entrepreneurship Internship **Variable**
Prerequisite(s): (1) instructor approval
Students apply knowledge and skills learned in Introduction to Entrepreneurship and other courses completed in the Entrepreneur program to assist a real small business owner or nonprofit organization with a working project. Students record the tasks performed in a notebook reviewed periodically by the owner and faculty sponsor to assure that appropriate competencies are developed and reinforced. Students make a final presentation summarizing project results and recommendations. Based on state guidelines, students must complete 40 hours of work for each credit hour in this course.

Finance (FINA)

FINA 1100 Principles of Property and Casualty Insurance **4.5 – 0.0 – 4.5**
This course serves as an introduction to the field of property and casualty insurance, and the needs of individuals or organizations for various categories of protection. Areas of emphasis include fire, accident, theft, property damage, 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. (Cross-listed as INSU 1100)

FINA 1200 Wealth-Building Fundamentals and Personal Finance **4.5 – 0.0 – 4.5**
This course is designed to give 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**
The fundamental functions of financial institutions are covered in this course. 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. Such applications include time value concepts, bond value calculations, statistical applications, interest rate computations, profit margin determinations, and breakeven analysis.

FINA 2100 Introduction to Investments **4.5 – 0.0 – 4.5**
This course presents an introductory review of investment concepts and theory including analysis of individual investments (stocks, bonds, mutual funds, etc.), security markets, and portfolio management.

FINA 2200 Investments **4.5 – 0.0 – 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. In this course, 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(s): (1) FINA 2206
This course is the second of two courses examining the fundamentals of financial planning. In this course, 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 focus of the course is an introduction to concepts, theories, and laws affecting the management of financial assets. Examples supplied by professionals in employee benefits are examined.

FINA 2220 Asset and Liability Management for Financial Institutions **3.0 – 0.0 – 3.0**
Prerequisite(s): (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(s): (1) ACCT 1120
This course presents the basics of financial analysis: forecasting, operating and financial leverage, working capital, current asset management, short-term financing, divided policy, convertible bonds, warrants, and options. These areas are 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 **3.0 – 0.0 – 3.0**
Prerequisite(s): (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(s): (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(s): (2) FINA 2200 and FINA 2210 or instructor approval
This course acquaints students with tax planning strategies as they relate to investment goals. Emphasis is placed on 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. Special emphasis is given 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. An examination of newer hybrid plan structures, early retirement incentive programs, and executive retirement arrangements are also covered.

FINA 2320 Retirement Planning and Employee Benefits **4.5 – 0.0 – 4.5**
Prerequisite(s): (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. Employee benefits are reviewed 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). This course is designed to provide a framework for the strategic choices in managing compensation. This course overviews the pay model, basic compensation, and the steps to developing employee compensation packages. Specifically, topics covered include compensation, performance evaluations, employee benefits, comparing the competition's pay models, union contracts, government regulations, and the budget process.

FINA 2322 Human Resources and Compensation Management **4.5 – 0.0 – 4.5**
The course examines human resources and compensation management including human resource planning, wage determination, employee benefits, total compensation concepts, and noneconomic rewards. Institutional and economic issues such as seniority, management rights, and union security are also explored.

FINA 2330 Estate Planning **4.5 – 0.0 – 4.5**
Prerequisite(s): (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 is an introduction to an 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 Case Analysis in Financial Planning **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) FINA 2200, FINA 2210, FINA 2310, FINA 2320, FINA 2330, or instructor approval
This course serves as the capstone course in the Financial Planning program. This case-based class provides students an opportunity to demonstrate competencies in financial planning and insurance principles, income tax planning, retirement planning, and estate planning.

FINA 2981 Internship in Finance **Variable**
Prerequisite(s): (1) instructor approval
This course provides students an opportunity 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 in this course.

Fire Science Technology (FIST)

FIST 1000 Introduction to Fire Protection Principles 3.0 – 0.0 – 3.0

Prerequisite(s): (1) acceptance into the Fire Science Technology program

This course gives a broad understanding of the characteristics of systems analysis and of its uses and limitations in fire protection and other problem areas. This course is illustrated with case studies and models using the systems approach to fire suppression and prevention. This course is the initial and entry-level course to the entire Fire Science Technology program and covers a broad scope of the fundamentals of fire suppression and protection including suppression techniques, equipment, personal protection, tools, and mechanical suppression devices.

FIST 1020 Chemistry and Dynamics of Fire 4.0 – 0.0 – 4.0

Prerequisite(s): (1) acceptance into the Fire Science Technology program

This course is an introduction to the chemical nature and properties of inorganic compounds as related to the fire service. Topics include fundamental laws of chemistry, states of matter, gas laws, chemical bonding, and thermodynamics with applications to various industrial processes.

FIST 1040 Principles of Property and Casualty Insurance 3.0 – 0.0 – 3.0

Prerequisite(s): (1) acceptance into the Fire Science Technology program

Upon completion of this course, students are able to apply the theory, concepts, and basic understanding of insurance practices and procedures. Areas of emphasis include fire, accident, theft, property damage and 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 skills involving suppression materials, tools, equipment, procedures, general laws, and regulations. Interpersonal and teamwork skills along with appropriate written and verbal communication skills using the terminology of the occupation and the organization and industry are stressed.

FIST 1050 Building Construction Related to Fire Science 4.0 – 0.0 – 4.0

Prerequisite(s): (1) acceptance into the Fire Science Technology program

This course is designed to provide a basic understanding of how the construction type, alternative design, and materials influence a building's reaction to fire. This course 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. Building code requirements; steel, timber, and masonry construction; structures of the common form; lift-slab and tilt-up construction; and developments in the building construction field are covered.

FIST 1060 Fire Service Professional: Health and Welfare 3.0 – 0.0 – 3.0

Prerequisite(s): (1) acceptance into the Fire Science Technology program

This course is devoted to firefighter health and welfare. Factors studied in depth include: stress management, diet and exercise specific to the needs of firefighters, critical incident debriefing, and other health and welfare subjects related to reducing firefighter burnout and increasing firefighter life expectancies.

FIST 1070 Fire Protection Systems 3.0 – 0.0 – 3.0

Prerequisite(s): (1) acceptance into the Fire Science Technology program

This course is a study of structural protection systems, personnel protection, and detection systems. Commercial and private fire alarm systems and direct, local, and auxiliary annunciator systems are covered. This course follows the history and evolution of these systems by visiting historic events that demanded their necessity.

FIST 1080 Hydraulics and Water Supply 4.0 – 0.0 – 4.0

Prerequisite(s): (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.

FIST 1090 Firefighter I 15.0 – 0.0 – 15

Prerequisite(s): (3) FIST 1080, ENGL 1010, and medical screening compliant with NFPA 1582

This course includes the information and skills to perform firefighting functions on the fire ground. Upon completion, students are eligible to take the Nebraska State Firefighter I Certification Test. This course prepares 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 2000 Incident Command System 4.0 – 0.0 – 4.0
Prerequisite(s): (1) acceptance into the Fire Science Technology program
This course covers the emergency management practices used during an emergency situation by responders. The structure and responsibilities of the Incident Command System, the management of facilities, and typing of resources are covered in this class.

FIST 2010 Incendiary Fire Analysis and Investigation 3.0 – 0.0 – 3.0
Prerequisite(s): (1) acceptance into the Fire Science Technology program
This course examines the procedures and techniques for the collection, comparison, and analysis of the physical evidence relative to the area of fire origin. Also studied are principles of evidence of ignition phenomenon and propagation variables; legislative, economic, psychological, and sociological variables of the incendiary fire; the role of insurance and government programs; and data analysis and prediction techniques, including pattern analysis.

FIST 2020 Fire Prevention, Building Inspection, and Codes 4.0 – 0.0 – 4.0
Prerequisite(s): (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. Consideration is given to related governmental inspection and education procedures.

FIST 2050 Municipal Fire Administration 3.0 – 0.0 – 3.0
Prerequisite(s): (1) acceptance into the Fire Science Technology program
This course reviews the fire division organization, fire company organization, the company officer, personnel administration, communications, fire equipment maintenance, training, fire prevention, records, and reports.

FIST 2060 Strategy and Tactics 4.0 – 0.0 – 4.0
Prerequisite(s): (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. This course is designed for the entire fire service or students who would like to enter the career field. This course focuses heavily on the decision-making process used in incident mitigation and a systems approach to safely and effectively manage an emergency scene. This class is taught in a manner to include the roles and responsibilities of the entry-level firefighter through the incident commander and follows the U.S. Fire Administration's curriculum.

FIST 2070 Hazardous Materials: Operations and Chemistry 5.0 – 0.0 – 5.0
Prerequisite(s): (1) acceptance into the Fire Science Technology program
This course provides basic fire chemistry relating to the categories of hazardous materials including problems of recognition, reactivity, and health encountered by firefighters.

FIST 2090 Firefighter II 7.0 – 3.0 – 8.0
Prerequisite(s): (2) FIST 2070 and meet the medical requirements of NFPA 1582, Standard on Comprehensive Occupational Medical Program for Fire Departments; each candidate shall complete any physical fitness requirement for entry-level personnel as required and validated by the Medical Director
Upon successful completion of the course, students shall function on emergency scenes with general supervision. Firefighter II begins the entry-level education requirements for leading a team in emergency mitigation or hazardous materials response. Firefighter II is a national curriculum and certified by the State of Nebraska. It is designed to expand the students' knowledge of ventilation, search and rescue, hazardous materials response, extrication and firefighting strategy, tactics, and tasks. Advanced fire suppression operations and pre-fire planning and occupancy inspections are covered in the curriculum.

French (FREN)

FREN 1010 Beginning French I 7.5 – 0.0 – 7.5
Beginning French teaches basic skills, comprehension, pronunciation, speaking, listening, reading, writing, and vocabulary.

FREN 1020 Beginning French II 7.5 – 0.0 – 7.5
Prerequisite(s): (1) FREN 1010 or two years of high school French
A further concentration on the acquisition of basic skills of FREN 1010 is completed.

FREN 2010 Intermediate French I 4.5 – 0.0 – 4.5
Prerequisite(s): (1) FREN 1020 or three years of high school French
This course reviews grammar and literacy readings. This class is conducted mainly in French with an emphasis on comprehension and discussion.

FREN 2020 Intermediate French II 4.5 – 0.0 – 4.5
Prerequisite(s): (1) FREN 2010 or four years of high school French
In this course, students review verb tenses and grammar points and are introduced to passé simple. Additionally, students read short works of French literature for comprehension and discussion.

FREN 2030 Intermediate French III **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) FREN 2020
This course is an extension of FREN 2020. It continues the review of French verb tenses and grammar points as well as the reading of French literature for comprehension and discussion.

Geography (GEOG)

GEOG 1010 Fundamentals of Geography **4.5 – 0.0 – 4.5**
This course provides students with an overview of the environmental and social concerns encompassed by the discipline of geography. Essential concepts in both cultural, human, and physical geography are surveyed, and 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 students with spatial and ecological perspectives on the human occupancy of the earth. Distinctive cultural landscapes are examined as the product of different ways of life, including particular mixes of language, religion, population dynamics, food production, economic and political organization, settlement systems, natural resource exploitation, and culture history. 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 students to 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. Particular attention is given to the ways in which human life is influenced by weather and climate 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. Students are introduced to geomorphic forces that work from within the earth to create landforms and to processes that operate at the earth's surface to wear landforms away. Considerable attention is given to the fact that many of the processes that create or destroy landforms also constitute natural hazards with which human societies must contend. 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. The earth is studied 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 is designed to expand the students' knowledge of the world beyond the borders of Nebraska. The earth is divided into a manageable number of geographical areas (regions) that are analyzed in terms of their human and physical geographies. Particular attention is given to distinctions between the wealthy, technologically advanced regions of the earth and those areas that remain less developed. Processes of globalization that increasingly link regions to one another are explored. 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.

German (GERM)

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. Comprehension, pronunciation, speaking, listening, reading, writing, and vocabulary are stressed.

GERM 1020 Elementary German II **7.5 – 0.0 – 7.5**
Prerequisite(s): (1) GERM 1010 or its equivalent
Students continue to focus on the skills begun in GERM 1010. Comprehension, pronunciation, speaking, listening, reading, writing, and vocabulary are stressed.

GERM 2900 Special Topics in German **Variable**
Prerequisite(s): (1) instructor approval
Topics not normally addressed by other courses in the German curriculum may be offered in GERM 2900. Examples include advanced grammar, intensive conversation and pronunciation, and contemporary culture.

Graphic Communication Arts and Design (GCAD)

GCAD 1010 Concept Development **3.5 – 3.0 – 4.5**
This course provides a basic introduction to graphic design. Emphasis is placed on creative problem solving through the use of thumbnail and rough sketches.

GCAD 1020 Introduction to Computer Methods **3.5 – 3.0 – 4.5**
This course introduces students to basic graphic design computer skills. Students use bitmap and vector software to implement design solutions. Software is chosen by professionals in the field based on current trends. The course also includes computer operations, scanning, and printing.

GCAD 1110 Typography I **3.5 – 3.0 – 4.5**
Prerequisite(s): (2) GCAD 1010 and GCAD 1020
This course introduces students to type history, terminology, specifications, and design as applied to print. Students apply fundamental criteria to select and use typefaces and fonts.

GCAD 1120 Layout **3.5 – 3.0 – 4.5**
Prerequisite(s): (1) GCAD 1110 and GCAD 1520
In this course, students combine typography and imagery to create one-page, multi-panel, basic multi-page, and large format layouts.

GCAD 1210 History of Graphic Design **3.5 – 3.0 – 4.5**
Prerequisite(s): (1) GCAD 1110
This course covers the history of graphic design from the invention of writing to the digital age.

GCAD 1310 Web Design **3.5 – 3.0 – 4.5**
Prerequisite(s): (1) GCAD 1110
This course is an introduction to basic web design skills and topics. Students learn the basics of writing XHTML and CSS codes as well as the basics of Dreamweaver. They also learn about website navigation and standard web graphics formats.

GCAD 1500 Print Overview **4.5 – 0.0 – 4.5**
This course is an overview of the printing industry and its relevance to the graphic designer. Printing processes and their limitations are explored. Pre-press, press, and post-press operations are discussed. Students learn about paper and its specifications. Students also learn how to make folding dummies. Tours of local printing companies are an important part of this class.

GCAD 1520 Desktop Publishing Basics – InDesign **3.5 – 3.0 – 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. Word processing for desktop publishing and creating graphics files for printing purposes are also covered.

GCAD 2050 Package Design **3.5 – 3.0 – 4.5**
Prerequisite(s): (1) GCAD 1120
This course presents challenges in the design of packages and the 3-D graphic design process. Material selection, fabrication, and structural design are emphasized.

GCAD 2060 Illustration **3.5 – 3.0 – 4.5**
Prerequisite(s): (1) GCAD 1120
This course covers techniques and challenges related to technical and pictorial illustration. Media variety is emphasized.

GCAD 2110 Typography II **3.5 – 3.0 – 4.5**
Prerequisite(s): (1) GCAD 1110
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.

GCAD 2140 Publication Design **3.5 – 3.0 – 4.5**
Prerequisite(s): (1) GCAD 1120
This course covers the design and production of multi-page printed publications. A variety of formats are covered, ranging from mass media to special interest.

GCAD 2210 Graphic Design I **3.5 – 3.0 – 4.5**
Prerequisite(s): (2) GCAD 1120 and GCAD 1210
Co-requisite(s): (1) GCAD 1210
This course is an introduction to design and visual communication using graphic concepts and solutions. Emphasis is on symbolism, visual communication, and language skills for graphic design.

NOTE: Consideration may be given to taking GCAD 1210 concurrently with GCAD 2210. Contact program faculty for this option.

GCAD 2220 Graphic Design II **3.5 – 3.0 – 4.5**
Prerequisite(s): (1) GCAD 2210
This course is a continuation of GCAD 2210 with emphasis on information design and its application.

GCAD 2230 Graphic Design III **5.0 – 3.0 – 6.0**
Prerequisite(s): (1) GCAD 2220
This course is the continuation of GCAD 2220 with emphasis on designing for identity. The final product is a comprehensive portfolio.

GCAD 2900 Special Topics in Graphic Communication Arts and Design **Variable**
Prerequisite(s): (1) instructor approval
This course permits instruction in special content areas not included in other Graphic Communication Arts and Design courses.

GCAD 2981 Internship **0.0 – 15.0 – 4.5**
Prerequisite(s): (2) GCAD 2220 and instructor approval
Co-requisite(s): (1) GCAD 2220
This course consists of on-the-job experience at an approved work site under the direct supervision of a professional who has a degree in graphic design. Each student spends a minimum of 15 hours per week working with professionals. Practical knowledge and skills gained in the classroom are applied in the work setting. Other experiences include attending staff meetings and becoming familiar with client communications, deadlines, and budgets. Students may work closely with designers or be given independent projects to complete. Based on state guidelines, students must complete 40 hours of work for each credit hour in this course.

NOTE: Consideration may be given to taking GCAD 2220 concurrently with GCAD 2981. Contact program faculty for this option.

Health (HLTH)

HLTH 1000 Cardiopulmonary Resuscitation **1.0 – 0.0 – 1.0**
This course teaches students how to recognize and respond to life-threatening emergencies such as cardiac arrest, respiratory arrest, and foreign-body airway obstruction (choking). Students learn to recognize heart attack and stroke symptoms in adults and breathing difficulty in children. This course teaches the skills needed to respond to the emergencies identified. Students learn the skills of CPR for victims of all ages (including ventilation with barrier devices and bag-mask devices), use of an automated external defibrillator (AED), and relief of foreign-body airway obstruction (FBAO).

HLTH 1005 CPR Refresher **0.5.0 – 0.0 – 0.5**
Prerequisite(s): (1) current healthcare provider card
This course reviews with students how to recognize and respond to life-threatening emergencies such as cardiac arrest and foreign-body airway obstruction (choking). Students review how to recognize heart attack and stroke symptoms in adults and breathing difficulty in children. This course teaches the skills needed to respond to the emergencies identified. Students review the skills of CPR for victims of all ages (including ventilation with barrier devices and bag-mask devices), use of an automated external defibrillator (AED), and relief of foreign-body airway obstruction (FBAO).

HLTH 1010 Heartsaver First Aid with CPR and AED **1.0 – 0.0 – 1.0**
The Heartsaver First Aid course teaches rescuers to effectively identify and treat adult emergencies in the critical first minutes of injury or illness until emergency medical service personnel arrive. The course provides basic training solutions for first aid, adult CPR, and AED actions.

HLTH 1020 First Responder Course **4.0 – 0.0 – 4.0**
Prerequisite(s): (1) HLTH 1000
This course is designed to instruct students to the level of first responder, who serves as a vital link in the chain of the healthcare team. This curriculum includes skills necessary for students to provide emergency medical care with a limited amount of equipment. Successful completion of the program allows students to sit for the certifying exam.

HLTH 1050 Nutrition in the Life Cycle **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) BIOS 1310 or BIOS 2310
Nutrition represents an important health concern throughout the life cycle. This course includes human nutrition, introduction to therapeutic and modified diets, nutrition in healthcare through the life cycle and drug-nutrient interactions, nutritional assessment, and analysis. This course also covers gastrointestinal, cardiovascular, respiratory, and endocrine systems as related to medical nutrition therapy. This is a transferable course.

HLTH 1100 Emergency Medical Technician – Basic **10 – 6.0 – 12.5**
Prerequisite(s): (3) must be 18 years of age to sit for the National Registry Exam, must have high school diploma or GED to apply for State of Nebraska Certification, and must provide proof of current cardiopulmonary resuscitation (CPR) certification for the professional rescuer or healthcare provider
The Emergency Medical Technician (EMT) course provides an introduction to emergency medical care. Modules of training include medical-legal, roles and responsibilities of the EMT, documentation and communication, human body 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 child 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.

HLTH 1105 EMT Refresher 3.0 – 0.0 – 3.0
Prerequisite(s): (1) EMT certificate
This course is designed to review the safety, well-being, and medical and legal issues surrounding the EMT. Topics for review include basic and advanced airway techniques; medical and trauma assessment; signs, symptoms, treatment, and pharmacology associated with EMT scope of practice; trauma injuries; and care of obstetric and pediatric patients.

HLTH 1110 Intermediate Part 1 of 3 10 – 6.0 – 12.0
This course is part one in a sequence of three courses in the intermediate EMS program that must be completed consecutively. This course provides the intermediate's role and the unique aspects of the profession, such as an overview of EMS systems, the importance of personal well-being, and an introduction to ethics and medical and legal issues. The module also provides the understanding of general principles of anatomy and physiology, pharmacology, medication administration, intravenous access, basic and advanced airway management, patient assessment, and introduction to respiratory emergencies and management.

HLTH 1112 Intermediate Part 2 of 3 10 – 6.0 – 12.0
Prerequisite(s): (1) HLTH 1110
Co-requisite(s): (1) HLTH 1113
This course is part two in a sequence of three courses. This course provides an introduction to cardiac, neurological, endocrine, urological, and lymphatic emergencies. This course provides the understanding of anatomy and physiology and signs, symptoms, and medical care of the above mentioned medical emergencies.

HLTH 1113 Intermediate Clinical Part 2 0.0 – 10.5 – 3.5
Prerequisite(s): (1) HLTH 1110
Co-requisite(s): (1) HLTH 1112
The clinical component of the intermediate program allows students to synthesize cognitive and psychomotor skills. The clinical integrates and reinforces the didactic and skills laboratory component of the intermediate curriculum. Students follow sound educational principles that are logically sequenced to proceed from simple to complex tasks, being closely supervised and evaluated by experienced preceptors.

HLTH 1114 Intermediate Part 3 of 3 10 – 6.0 – 12.0
Prerequisite(s): (2) HLTH 1112 and HLTH 1113
Co-requisite(s): (1) HLTH 1115
This course provides an introduction to ambulance operations, rescue operations and extrication, mass casualty incidents, and crime scene awareness. In conjunction with this course, students must successfully complete HTLH 1115.

HLTH 1115 Intermediate Clinical Part 3 0.0 – 10.5 – 3.5
Prerequisite(s): (2) HLTH 1112 and HLTH 1113
Co-requisite(s): (1) HLTH 1114
This clinical component allows students to synthesize cognitive and psychomotor skills. This course also integrates and reinforces the didactic and skills laboratory component of the intermediate curriculum. Students follow sound educational principles that are logically sequenced to proceed from simple to complex tasks, being closely supervised and evaluated by experienced preceptors.

HLTH 1116 Intermediate to Paramedic 10 – 6.0 – 12.0
Prerequisite(s): (3) HLTH 1114, HLTH 1115, and HLTH 1420
Co-requisite(s): (1) HLTH 1117
This course enables intermediate students to meet the criteria needed to become a paramedic. The course provides the additional knowledge and skills required to function at the paramedic level. This course provides the continued anatomy and physiology required in the DOT curriculum for paramedics. An additional clinical/field co-requisite component must also be successfully completed in order to sit for the paramedic certification exam.

HLTH 1117 Intermediate to Paramedic Clinical 0.0 – 6.0 – 2.0
Prerequisite(s): (3) HLTH 1114, HLTH 1115, and HLTH 1420
Co-requisite(s): (1) HLTH 1116
This component of the paramedic program allows students to synthesize cognitive and psychomotor skills. This course integrates and reinforces the didactic and skills laboratory component of the Paramedic curriculum. Students follow sound educational principles that are logically sequenced to proceed from simple to complex tasks, being closely supervised and evaluated by experienced preceptors.

HLTH 1120 EMT – Paramedic Part 1 of 4 10 – 6.0 – 12.0
Prerequisite(s): (6) must be 18 years of age, must have high school diploma or GED, must have current EMT-B certification, current CPR certification for healthcare provider or professional rescuer, application on file for entrance into the Paramedic program, and must have own transportation
Co-requisite(s): (1) BIOS 1310
This is the first course in a sequence of four courses that provides an introduction to emergency medical care. Topics covered include knowledge of EMS systems; role, responsibility, and well-being of paramedics; 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: This program has special admission requirements. Contact Student Services for more information and to obtain a current information packet.

HLTH 1122 EMT – Paramedic Part 2 of 4 10 – 6.0 – 12.0
Prerequisite(s): (1) HLTH 1120
Co-requisite(s): (1) HLTH 1123
This course is part two in a sequence of four courses in the Paramedic program that must be completed consecutively. This course provides an introduction to medical emergencies. Modules provide the understanding of anatomy and physiology, signs and symptoms, and medical care of the cardiac, neurological, endocrine, gastrointestinal, allergies and anaphylaxis, and urological systems.

NOTE: This program has special admission requirements. Contact Student Services for more information and to obtain a current information packet.

HLTH 1123 Paramedic Clinical
Part 1 of 3 0.0 – 20.0 – 6.5
Prerequisite(s): (1) HLTH 1120
Co-requisite(s): (1) HLTH 1122
The clinical or field component of the Paramedic program allows students to synthesize cognitive and psychomotor skills. The co-requisite, HLTH 1122, integrates and reinforces the didactic and skills laboratory component of the Paramedic curriculum. Students follow sound educational principles that are logically sequenced to proceed from simple to complex tasks, being closely supervised and evaluated by experienced preceptors.

NOTE: This program has special admission requirements. Contact Student Services for more information and to obtain a current information packet.

HLTH 1124 EMT – Paramedic Part 3 of 4 10 – 6.0 – 12.0
Prerequisite(s): (3) HLTH 1120, HLTH 1122, and HLTH 1123
Co-requisite(s): (1) HLTH 1125
This course is part three in a sequence of four courses in the Paramedic program that must be completed consecutively. This course provides an introduction to hematological, environmental, toxicological, behavioral, trauma, obstetrical, pediatrics, geriatric emergencies, hazardous materials, and weapons of mass destruction. Modules provide the understanding of anatomy and physiology, and the signs, symptoms, and medical care of the above mentioned emergencies.

NOTE: This program has special admission requirements. Contact Student Services for more information and to obtain a current information packet.

HLTH 1125 Paramedic Clinical
Part 2 of 3 0.0 – 20.0 – 6.5
Prerequisite(s): (3) HLTH 1120, HLTH 1122, and HLTH 1123
Co-requisite(s): (1) HLTH 1124
The clinical or field component of the Paramedic program allows students to synthesize cognitive and psychomotor skills. This course integrates and reinforces the didactic and skills laboratory component of the Paramedic curriculum. Students follow sound educational principles that are logically sequenced to proceed from simple to complex tasks, being closely supervised and evaluated by experienced preceptors.

NOTE: This program has special admission requirements. Contact Student Services for more information and to obtain a current information packet.

HLTH 1126 Paramedic Part 4 of 4 10 – 6.0 – 12.0
Prerequisite(s): (1) HLTH 1125
Co-requisite(s): (1) HLTH 1127
This course is part four in a sequence of four courses in the Paramedic program that must be completed consecutively. This course provides an introduction to ambulance operations, rescue operations and extrication, mass casualty incidents, and crime scene awareness.

NOTE: This program has special admission requirements. Contact Student Services for more information and to obtain a current information packet.

HLTH 1127 Paramedic Clinical
Part 3 of 3 0.0 – 21.0 – 7.0
Prerequisite(s): (2) HLTH 1124 and HLTH 1125
Co-requisite(s): (1) HLTH 1126
The clinical or field component of the Paramedic program allows students to synthesize cognitive and psychomotor skills. Students follow sound educational principles that are logically sequenced to proceed from simple to complex tasks, being closely supervised and evaluated by experienced preceptors.

NOTE: This program has special admission requirements. Contact Student Services for more information and to obtain a current information packet.

HLTH 1128 Extended Clinical or Field Rotation 0.0 – 6.0 – 2.0
Prerequisite(s): (2) HLTH 1126 and HLTH 1127
This elective clinical or field component of the Paramedic program allows students to develop a level of mastery in cognitive and psychomotor skills. It integrates and reinforces the didactic and skills laboratory component of the paramedic curriculum with an emphasis on critical thinking and team leadership. Students follow sound educational principles, logically sequenced, proceeding from simple to complex tasks while closely supervised and evaluated by experienced preceptors. This course may not be taken as an additional elective for students who have otherwise not been able to complete the Department of Transportation clinical field requirements in HLTH 1127. HLTH 1128 is not necessary for degree completion.

HLTH 1129 Advanced Provider Renewal 4.5 – 0.0 – 4.5
Prerequisite(s): (1) completion of an Emergency Medical Technician, Emergency Medical Technician Intermediate or Emergency Medical Technician Paramedic course, or certification at state or national registry level
This is a course review to maintain a provider's competence in knowledge and skill performance. Designed to meet the hours required to renew certification, it provides remediation to gain certification as well as to provide 24 hours of continuing education for the EMT-B. This course meets the standards of the National Registry of Emergency Medical Technician renewal requirements.

HLTH 1130 Emergency Medical Service Instructor 6.0 – 0.0 – 6.0
Prerequisite(s): (2) national registered EMS provider and healthcare provider instructor
This course is designed for the emergency medical services provider to become an educator that understands how adult students learn and to provide learning opportunities that support their intellectual, professional, and personal development.

HLTH 1131 Critical Care Paramedic 6.5 – 1.5 – 7.0
Prerequisite(s): (1) current certification as a paramedic
This course is designed to give the paramedic the increased knowledge and skills to manage the critically injured or ill patient while being transported from one healthcare facility to another by critical care transport services.

HLTH 1200 Long-Term Care – CNA 5.0 – 4.5 – 6.5
The course is designed to meet the Nebraska Health and Human Services System training requirements for nursing assistant certification and employment in long-term care facilities. The course combines classroom lecture, laboratory application, and clinical experience for development of basic skills needed to care for the elderly. Course content focuses on teaching the nursing assistant to provide safe, effective, and caring services to the elderly or chronically ill patient of any age in a long-term care facility.

HLTH 1210 LPN – Certified LPN-C 5.0 – 2.1 – 6.0
Prerequisite(s): (3) current LPN license in Nebraska or compact state, completion of pharmacology entrance exam with a minimum score of 76 percent, and submission of an application
This course is designed to prepare the Licensed Practical Nurse (LPN) to perform those duties consistent with the expanded scope of practice as outlined in Title 172, Chapter 102. Upon successful completion of this course, the LPN is eligible to take the Nebraska State LPN-Certification examination.

HLTH 1300 Medication Aide 5.0 – 0.0 – 5.0
This course is designed to prepare students to meet the requirements of the Nebraska Medication Aide Act. The course curriculum includes information regarding medication administration, pharmacology, state rules and regulations, classification of drugs, and documentation of drug administration. The course focuses on the responsibilities of the medication aide in an assisted living facility or a skilled care nursing facility. Upon successful completion of this course, students are eligible to take the Nebraska state administered written examination. After successful completion of the state exam and completion of the state application process, the student's name is placed on the medication aide registry with the Nebraska Department of Health and Human Services Regulation and Licensure credentialing division.

HLTH 1400 Advanced Medical Life Support 2.0 – 0.0 – 2.0
This course is an in-depth study of medical emergencies for the adult patient. The provider course emphasizes a pragmatic approach and systematic format to patient care. This course is designed to combine interactive case study-based lectures with hands-on physical assessment of patients. This course is particularly valuable for any healthcare provider; previous health training is strongly encouraged prior to taking this course.

HLTH 1410 Pre-Hospital Trauma Life Support 2.0 – 0.0 – 2.0
This course is designed to provide the practicing pre-hospital care provider with a specific body of knowledge related to the pre-hospital assessment and care of the trauma patient. It is stressed that this is a continuing education program and contains information that may be a review for some or all participants. The uniqueness of this program rests not with an entirely new body of knowledge, but instead with advances in pre-hospital trauma intervention techniques. Students are using new combinations and applications of existing skills and knowledge to better patients' chances at surviving traumatic events.

HLTH 1420 Advanced Cardiac Life Support **2.0 – 0.0 – 2.0**

Prerequisite(s): (2) CPR for the healthcare provider and must be an advanced healthcare provider

This course teaches the participant how to recognize and respond to life-threatening emergencies such as cardiac arrest, respiratory arrest, stroke, and hypothermic adult patients. Students review rhythm recognition and how to use the heart monitor in the various modes of electrical therapy. Students learn to recognize the signs and symptoms along with the management algorithm associated with the individual life-threatening rhythm. The advanced provider learns and practices the various forms of advanced airway management along with a review of CPR for victims of all ages (including ventilation with barrier devices and bag-mask devices), use of an automated external defibrillator (AED), and relief of foreign-body airway obstruction (FBAO).

HLTH 1421 Advanced CLS Renewal **1.0 – 0.0 – 1.0**

Prerequisite(s): (2) CPR for the healthcare provider and must be an advanced healthcare provider

This course reviews with students how to recognize and respond to life-threatening emergencies such as cardiac arrest, respiratory arrest, stroke, and hypothermic adult patients. Students review rhythm recognition and how to use the heart monitor in the various modes of electrical therapy. Students review the signs and symptoms along with the management algorithm associated with the individual life-threatening rhythm. The advanced provider reviews and practices the various forms of advanced airway management along with a review of CPR for victims of all ages (including ventilation with barrier devices and bag-mask devices), use of an automated external defibrillator (AED), and relief of foreign-body airway obstruction (FBAO).

HLTH 1430 Pediatric Advanced Life Support **2.0 – 0.0 – 2.0**

Prerequisite(s): (2) CPR for the healthcare provider and must be an advanced healthcare provider

This course is designed to aid the pediatric healthcare provider in developing the knowledge and skills necessary to efficiently evaluate and effectively manage seriously ill infants and children. In this course, students learn how to assess for evidence of respiratory and circulatory compromise, establish treatment priorities, and intervene when necessary to stabilize the child. Students also review treatment of the respiratory and circulatory systems, management of cardiac arrest and arrhythmia, and immediate post-resuscitation care.

HLTH 1431 Pediatric Advanced Cardiac Life Support Renewal (PALS) **1.0 – 0.0 – 1.0**

Prerequisite(s): (1) current PALS provider

This course reviews with the pediatric healthcare provider the knowledge and skills necessary to efficiently evaluate and effectively manage seriously ill infants and children. In this course, participants review how to assess for evidence of respiratory and circulatory compromise, establish treatment priorities, and intervene when necessary to stabilize the child. Students also review treatment of the respiratory and circulatory systems, management of cardiac arrest and arrhythmia, and immediate post-resuscitation care.

Health Information Management Systems (HIMS)

HIMS 1115 Health Information Management Basics **4.5 – 0.0 – 4.5**

This course provides an overview of the healthcare field. Topics include evolution of healthcare, healthcare settings, professions, accreditation and regulation, management principles, health information systems, and healthcare data management. Current issues in healthcare are addressed in order to enrich students' understanding and breadth of knowledge of the U.S. healthcare systems.

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. Prefixes, suffixes, and word roots used in the language of medicine are introduced. Emphasis is placed on understanding the medical vocabulary as it applies to the anatomy, physiology, and pathology of the human body. The functioning of the body systems, clinical/surgical procedures, and therapies are studied. Normal, pathological, clinical, and laboratory considerations are examined in order to best prepare students for entrance into the healthcare professions. Emphasis is also placed on correct spelling and pronunciation.

HIMS 1130 Medical Terminology II **4.5 – 0.0 – 4.5**

Prerequisite(s): (1) HIMS 1120

This course is a continuation of HIMS 1120. Additional body systems, specialty medical areas, clinical procedures, laboratory tests, medical terms, and abbreviations are presented. Practical applications with case reports, operative and diagnostic tests, and laboratory and x-ray reports are studied. Upon completion, students should be able to pronounce, spell, and define a wide array of medical terms related to the human body.

HIMS 1150 Introduction to Medical Law and Ethics **4.5 – 0.0 – 4.5**

This course gives students a foundation into the federal and state laws of the medical profession and ethical issues associated with working in a healthcare setting. HIPPA regulations are explored in detail. Topics include professional, social, and interpersonal healthcare issues. Coverage also includes identification of measures to promote confidentiality as major changes in EHR (electronic health record) technology occur. Investigation of techniques to maintain office safety as well as the safety and confidentiality of patients and medical records is also included.

HIMS 1180 Disease Processes **4.5 – 0.0 – 4.5**

Prerequisite(s): (1) HIMS 1130

This course is an introduction to the fundamentals of human disease processes. Students gain knowledge in the study of the nature and description of disease, the study of etiology, signs and symptoms, diagnostic evaluation procedures, complications, treatment, management, prognosis, and prevention of disease. The coverage of diseases is organized by major body systems. Bacteriology as related to health, immunology, and infectious diseases is also explored. 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(s): (1) HIMS 1120

This course provides students with basic information and guidelines for style, grammar, and specific medical transcription mechanics. Topics include career role and responsibilities, transcription tools and guidelines, medical records and reports, and correspondence and business documents. Specific emphasis is placed on punctuation and capitalization; numbers, figures, dosages, and medical abbreviations; proofreading and quality assurance; utilization of reference materials; and word forms.

HIMS 1212 Microsoft Word for Medical Office **4.5 – 0.0 – 4.5**

Prerequisite(s): (1) INFO 1001

This course is designed to explore the features of Microsoft Word to create, design, and produce professional documents commonly used in a medical office. Emphasis is placed upon character, paragraph, and document formatting. Students explore features such as tables, columns, labels, envelopes, mail merge, outlines, styles, borders, shading, AutoFormat, AutoCorrect, macros, and templates. Students learn to enhance the visual display and clarity of documents by using various customizing and enhancement features. In addition, working with multiple documents, utilizing basic file management techniques, and inserting graphic elements are covered.

HIMS 1240 Health Statistics **4.5 – 0.0 – 4.5**

Prerequisite(s): (1) MATH 1310

This course provides students with the terms, definitions, and formulas used to calculate healthcare statistics. Upon completion of this course, students are able to compute vital statistics, central tendencies, and frequency distributions in healthcare settings such as hospitals and clinics. Students also receive an introduction to clinical research and the use of statistics in research.

HIMS 1310 Introduction to Anatomy and Physiology **4.5 – 0.0 – 4.5**

Prerequisite(s): (1) HIMS 1130

This course focuses on the human body as a living, functioning organism. It is designed to explore important concepts about human anatomy and physiology. Students learn how cells, tissues, organs, and body systems function together to carry on complex activities. All major body systems, their interaction with other structures and systems, and their role in the human organism are emphasized.

HIMS 1410 Introduction to Insurance **3.0 – 0.0 – 3.0**

Prerequisite(s): (1) HIMS 1120

This course is an introduction to health insurance and reimbursement. Students are introduced to the health insurance field, managed healthcare, and legal and regulatory issues, as well as reimbursement methodologies. They learn why coding is imperative for proper reimbursement from insurance companies, as well as why medical necessity is imperative for proper reimbursement. Various types of private and governmental health, disability, and liability insurance are explored in detail while focusing on claim form instruction, billing and collection practices, and reimbursement guidelines, including the audit and appeals process. Students complete HCFA claim forms and apply basic Medicare and Medicaid rules, commercial insurance regulations, and regulations of workers' compensation claims.

HIMS 2110 Principles of Management in Healthcare **4.5 – 0.0 – 4.5**

Prerequisite(s): (1) HIMS 1110

This course acquaints healthcare practitioners with management and supervision concepts essential to the understanding of the organizational environment in the healthcare field. Topics include management concepts; leadership and supervision; delegation and communication; financial management; planning, decision making, and organizing; employment law; human resources management (staffing, performance evaluation, employee retention, training, and development); policies and procedures; compliance regulations; adaptation, motivation, and conflict management; and strategic management.

HIMS 2150 Pharmacology I **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) HIMS 1130
This course provides students with a basic understanding of pharmacological concepts, emphasizing drug law, routes of administration, basic pharmacokinetics, and the specific pharmacology of drugs commonly used in the healthcare field. Students gain a framework of knowledge to help recognize drug names, drug classifications, and drug schedules and categories; understand drug actions and the rationale for treatment; and understand systematic and side effects, as well as contraindications of drugs. Current healthcare issues relating to pharmacology and drugs, drug regulation and approval, and legal and ethical issues of medication are also covered.

HIMS 2160 Pharmacology II **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) HIMS 2150
This course, a continuation of HIMS 2150, includes the study of pharmacological concepts and practices and the action of drugs on physiological and pathological processes. It continues the study of the classifications of drugs, their uses, mechanism of action, systematic effects, adverse effects, and contradictions. Specific analysis of drugs commonly used in major body systems, using biochemical and physiological concepts, is carried out. Students gain understanding of pharmacological concepts in the nervous, cardiovascular, immune, respiratory, digestive, renal, endocrine, reproductive, musculoskeletal, integumentary, and special senses systems. Current health issues relating to pharmacology and drugs are also discussed.

HIMS 2220 Medical Transcription I **4.5 – 0.0 – 4.5**
Prerequisite(s): (3) HIMS 1130, HIMS 1210, and HIMS 1212
This course provides fundamental instruction in transcribing medical reports from authentic dictated material using word processing software. Students prepare the following medical reports: history and physical, radiology, operative, pathology, discharge summary, autopsy, request for consultation, death summary, HPIP, and SOAP notes. Formatting and medical office writing styles are explored in detail.

HIMS 2230 Medical Transcription II **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) HIMS 2220
This course builds on the foundation provided in the beginning medical transcription course and bridges the gap between typically easy-to-understand dictation to the more difficult, often indistinct or ethnic dictation heard in the medical office environment. Emphasis is placed on the office-style dictation of a variety of medical reports. Live dictation is used extensively in this course.

HIMS 2400 Introduction to Coding and Billing **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) HIMS 1130
This course introduces students to basic coding procedures and insurance claim forms used in medical offices and hospitals. The course is designed to broaden coding knowledge and concepts but not to gain employment as a coder. Students gain a basic knowledge of the ICD-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(s): (2) HIMS 1130 and HIMS 1410
This course provides students with a comprehensive understanding of the International Classification of Disease (ICD-9-CM and ICD-10-CM) coding systems. Students learn the guidelines and terminology for correctly coding diagnoses in a physician office, hospital, home healthcare agency, or other healthcare facility. Challenging practice drills test the 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(s): (1) HIMS 2420
A continuation of Coding and Billing I, this course provides students with in-depth coverage of procedural coding utilizing the HCPCS coding system composed of Current Procedure Terminology (CPT) and National Level II codes. It includes detailed application of the CPT classification system for inpatient and outpatient services. Emphases include 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. Prospective payment in ambulatory and outpatient services is examined, and the implications of coding are explored.

HIMS 2900 Special Topics in Health Information Management Systems **4.5 – 0.0 – 4.5**
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(s): (1) instructor approval
This review course is designed for coders who are interested in taking the American Academy of Professional Coders Certification (AAPC) examination. Students gain an in-depth look at the medical coding process by applying coding guidelines for hospital, outpatient, and physician practice services. Guidelines include ICD-9-CM, CPT, and HCPCS coding methodologies. A pass or fail grade is issued. Upon completion of this course, a date is set for the student to take the five-hour Certified Professional Coder (CPC) examination.

NOTE: To maintain accreditation as a CPC, the AAPC requires completion of 18 continuing education units (CEUs) annually. The CPC exam may be re-taken yearly in lieu of submission of CEU credits for that year. A passing score must be obtained to fulfill the CEU requirement. All exams are required to be taken prior to the renewal date.

HIMS 2920 CPC-H Review 4.5 – 0.0 – 4.5
Prerequisite(s): (1) instructor approval
This review course is designed for coders who are interested in taking the American Academy of Professional Coders (AAPC) Certification-Hospital examination (CPC-H). It provides students an in-depth look at the medical coding process by applying coding guidelines for hospital, outpatient, and physician practice services. Guidelines include ICD-9-CM, CPT, and HCPCS coding methodologies. A pass or fail grade is issued. Upon completion of this course, a date is set for students to take the 5.5-hour examination.

NOTE: To maintain accreditation as a CPC-H, AAPC 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 are required to be taken prior to the renewal date.

HIMS 2930 RMT Exam Preparation 4.5 – 0.0 – 4.5
Prerequisite(s): (1) instructor approval
This review course is designed for recent graduates of medical transcription education programs, medical transcriptionists with fewer than two years of experience in acute care, and medical transcriptionists practicing in single-specialty, clinic, radiology, and pathology areas who are interested in taking the Registered Medical Transcriptionist (RMT) examination. It provides students an in-depth review of the core knowledge and skills necessary to practice medical transcription effectively in today's healthcare environment. This course is ideal for a Level 1 transcriptionist as defined in the medical transcriptionist job descriptions by the Association for Healthcare Documentation Integrity (AHDI) (found on AHDI's website). A pass/fail grade is issued. Upon completion of this course, a date is set for students to take the four-hour RMT examination.

HIMS 2980 Medical Office Applications 4.5 – 0.0 – 4.5
Prerequisite(s): (1) instructor approval
This capstone course provides students the opportunity to develop medical office management skills through individual and collaborative learning experiences. Content areas include managing EHRs (electronic health records), patient registration, appointment scheduling, procedure posting, insurance billing, payment posting, patient billings, report generation, data analysis and manipulation, preparation of various communications, and maintenance of patient records. The course integrates all of the competencies obtained throughout the program. Utilizing health information, patient data, coding and billing principles, and knowledge of healthcare reimbursement and regulatory standards to legally and ethically process healthcare claims, this course enables students to obtain a working knowledge of EHR management software.

HIMS 2981 Internship 0.0 – 12.0 – 4.0
Prerequisite(s): (1) instructor approval
The student 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. Based on state guidelines, students must complete 160 hours of work in this course.

Health Information Technology (HITP)

HITP 1005 Introduction to Record Keeping 4.5 – 0.0 – 4.5
This course introduces students to the types of patient records and documentation issues associated with them. Filing systems and record storage circulation methods, including electronic health records (EHR), are covered. Students gain an understanding for indexes, registers, and health data collection.

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 Using Electronic Health Records 4.5 – 0.0 – 4.5
This course prepares students to use electronic records in a medical practice. History, theory, and potential benefits of EHRs (electronic health records) are discussed. Students explore EHR components, including prescriptions, exam notes, lab orders and results, scanned images, and others. Privacy and security of health records are covered in detail.

HITP 1140 Understanding Healthcare 4.5 – 0.0 – 4.5
This course discusses the organization of care inside a practice setting, privacy laws, and professional and ethical issues encountered in the workplace. Specific language used in healthcare is covered, including terms related to structure and function, disorders, diagnosis, and treatments. Students learn to correctly decipher new terms by indentifying and working with different word parts.

HITP 1160 Electronic Records Practice 4.5 – 0.0 – 4.5
This course prepares students for the continuous technological changes in today's electronic records environment. Topics such as communication, human relations, time management, professionalism, and career success are covered. Students also gain knowledge of medical office safety, teamwork, and working ethically.

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. Effective communication skills and human relations skills are also taught and reinforced through experiential learning.

HITP 1410 Business Processes and System Analysis 4.5 – 0.0 – 4.5
This course provides hands-on experience in process management, quality management, and system analysis as it relates to healthcare. Experiential activities and case studies provide the vehicle to convey the principles needed to effectively perform business processes and system analysis for healthcare organizations.

HITP 1510 Working with EHR Systems 4.5 – 0.0 – 4.5
In this laboratory class, students work with simulated EHR (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 4.5 – 0.0 – 4.5
Prerequisite(s): (1) HITP 1410
Students study workflow process redesign concepts in-depth. Process validation and change management are also covered. This course presents concepts of health IT and practices workflow redesign as instruments of quality improvement. Methods of establishing a culture that support increased quality and safety are explored.

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. Approaches to assessing, selecting, and configuring EHRs (electronic health records) to meet the specific needs of end-users are discussed.

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 OSI (Open Systems Interconnection) model, standards, Internet protocol, federations and grids, the NHIN (National Health Information Network), and other nationwide approaches.

HITP 1701 Training and Instructional Design 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.

HITP 1702 Project Management and Leadership in HIT 4.5 – 0.0 – 4.5
This course presents principles of leadership and the effective management of teams. Leadership modes and styles best suited to IT deployment are discussed. Students gain an understanding of project management tools and techniques that result in the ability to create and follow a project management plan.

Heating, Air Conditioning, and Refrigeration (HVAC)

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. A general study is made of the electron theory as it relates to the electrical circuit. Various circuits, resistance capacitance, symbols, and ladder diagrams are covered. Laboratory experiments are conducted to provide understanding of electrical theory. Great emphasis is placed upon safety as students are working with actual controls and voltages.

HVAC 1010 Refrigeration Service Principles and Basic Automatic Controls 5.0 – 3.0 – 6.0
Students are provided experience in actual refrigeration service practice. Controls, system maintenance, and subassembly replacement are stressed. Students work out typical service problems. The fundamentals of controls, definitions, measurements, electric controls, safety controls, and refrigerant controls are included.

HVAC 1020 Refrigeration Shop Practices 2.0 – 3.0 – 3.0
Practice is given in using tools in basic refrigeration jobs such as tube bending, flaring, swaging, and soldering. Students also become acquainted with standard shop tools and equipment generally found in industry.

HVAC 1210 Gas Heat 2.0 – 3.0 – 3.0
Prerequisite(s): (1) HVAC 1000
Students examine, service, and troubleshoot various types of gas furnaces. Heating fundamentals, including combustion and heat transfer, are covered. Heating components, including spark ignition, are explained. Special attention is given to safety.

HVAC 1211 Electric Heat 2.0 – 3.0 – 3.0
Prerequisite(s): (1) HVAC 1210
Students make a comprehensive study of electric furnace wiring for residential and light commercial installations. Operating and safety controls are covered in-depth, and considerable time is given to proper care and use of test instruments, troubleshooting, and safety requirements.

HVAC 1220 Oil Burners 2.0 – 3.0 – 3.0
Prerequisite(s): (1) HVAC 1000
This course involves the study of high-pressure burners. Service and troubleshooting on high-pressure fuel pumps, primary controls, electrodes, and transformers are covered. Special emphasis is placed on safety, combustion efficiency tests, and adjustments.

HVAC 1330 Commercial Refrigeration Installation 2.0 – 3.0 – 3.0
Prerequisite(s): (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(s): (2) HVAC 1000 and HVAC 1010
Co-requisite(s): (1) HVAC 1020
Various systems are studied, and students solve typical service problems. Refrigerant leaks are repaired, components replaced, systems evacuated and dehydrated, oil and refrigerant charges installed, and systems tested and adjusted.

NOTE: The co-requisite HVAC 1020 must be taken concurrently or previously completed.

HVAC 1500 Air Conditioning, Domestic Refrigeration, and Appliance Repair 2.0 – 3.0 – 3.0
Prerequisite(s): (2) HVAC 1000 and HVAC 1010
Co-requisite(s): (1) HVAC 1020
This course begins with a review of the refrigerant cycle and system components. The curriculum also covers terminology used in the trade, principles of refrigeration, and identification of basic system components. Students practice with tools and shop equipment of the trade, including instruction in standard procedures and safety measures. Self-contained air-cooled residential systems are studied and serviced. Appliance repair such as washers, dryers, and microwaves is taught. Special attention is given to safety.

NOTE: The co-requisite HVAC 1020 must be taken concurrently or previously completed.

HVAC 1540 All-Weather Systems (Conventional) 2.0 – 3.0 – 3.0
Prerequisite(s): (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. Humidification, electronic air cleaning, and air filtering are also covered.

HVAC 2220 All-Weather Systems (Heat Pumps) 2.0 – 3.0 – 3.0
Prerequisite(s): (1) HVAC 1211
The refrigerant cycle and the reverse cycle principle, including the reversing valve, receive attention in this course. Special components and accessories used with heat pumps are covered. A considerable amount of instruction is devoted to electric controls found on heat pump systems and to the various services involved.

HVAC 2221 Installation and Service Problems 2.0 – 3.0 – 3.0
Prerequisite(s): (1) HVAC 1210
Students make a thorough study of problems related to gas heat installation. The areas of venting, combustion air, gas piping, and troubleshooting are covered. Efficiency tests are conducted in the laboratory, and special emphasis is placed on safety.

HVAC 2310 Refrigeration Certification 1.75 – 0.75 – 2.0
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(s): (2) HVAC 1000 and HVAC 1010
Various types of installations are studied with emphasis on the product to be cooled, the desired temperature to be maintained, and humidity conditions. Problems involving system balance and component capacity, use of heat load charts, pipe sizing tables, manufacturers' data, and specification sheets are presented, along with procedures for load calculations used in commercial refrigeration. Laboratory work consists of wiring and monitoring live units.

HVAC 2400 Blueprint Reading for Air Conditioning 3.0 – 0.0 – 3.0
Students learn to read and interpret service manuals covering air conditioning and heating. Duct layout on prints for various residential structures is covered.

HVAC 2420 Advanced Residential Air Conditioning 2.0 – 3.0 – 3.0
Prerequisite(s): (1) HVAC 2400
Heating and cooling needs of various structures are calculated using computerized calculators. Equipment selection, duct design, static pressure, and airflow are also covered.

HVAC 2421 Advanced Commercial Air Conditioning 2.0 – 3.0 – 3.0
Prerequisite(s): (1) HVAC 2400
Calculations on heat loss and gain are calculated for small commercial buildings. Duct layout is covered with special emphasis on equipment selection, registers, and grilles.

HVAC 2550 Air Conditioning (Commercial) 2.0 – 3.0 – 3.0
Prerequisite(s): (1) HVAC 1540
This course covers single and three-phase power. Compressors, condensers, coils, valves, and controls for commercial equipment are included. Unitary, remote, water, and air-cooled water tower systems are studied and serviced.

HVAC 2560 Sheet Metal Layout 2.0 – 3.0 – 3.0
The information in this course defines the basic fittings used in residential air conditioning and heating systems. Identification of typical hand tools, project layout, fabrication, machine operation, and final assembly of 12 completed modules is required.

HVAC 2570 Automated Building Controls 2.0 – 3.0 – 3.0
Prerequisite(s): (1) INFO 1001 or instructor approval
This course introduces students to the microprocessor and various HVAC systems and their components. Learning special commands and programming of the microprocessor controller is included.

HVAC 2900 Special Topics in HVAC Variable
Prerequisite(s): (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 – 15.0 – 3.0
Prerequisite(s): (1) instructor approval
The following experiences are expected: systems identification of components systems, temperature ranges, systems cleaning, refrigeration charging operations, leak checking and repairing, customer relations, billing, evaluating performance of students, and on-site inspection. Based on state guidelines, students must complete 40 hours of work for each credit hour in this course.

History (HIST)

HIST 1010 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. Political, economic, social, and cultural factors are considered, as well as the interaction between African Americans and the larger society.

HIST 1060 The History of Black Women in America 4.5 – 0.0 – 4.5
This course explores the history of black women in America. Black women's roles in the home, industry, and during World Wars are covered from the colonial period to present day. Areas of contemplation 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**
Traditional and Modern China 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 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**
The domestic problems and world position of Europe during the past century and a half are covered in this course. Political, economic, social, cultural, and technological factors are considered, particularly with regard to their effects on the United States.

HIST 2200 Latin American History **4.5 – 0.0 – 4.5**
This course covers the history and culture of Latin America from ancient history to the present. Political, economic, social, and cultural factors are considered, as well as the interaction between Latin America and the larger society.

HIST 2220 U.S. Military History **4.5 – 0.0 – 4.5**
This course is a survey of the U.S. military history from the founding days of America to the present with special emphasis on the 20th and 21st centuries. The political, social, cultural, economic, and marshal aspects of the U.S. military are examined.

HIST 2900 Special Topics in History **Variable**
Prerequisite(s): (1) instructor approval
This course permits instruction in special content areas not included in other History courses.

Horticulture (HORT)

HORT 1100 Introduction to Horticulture **5.0 – 3.0 – 6.0**
This course forms the basis for all other horticulture courses. It includes the study of structures and functions in plants; requirements for growth and production including soil and fertilizers, temperature, light, growth stimulants and retardants, and water use and application; propagation; and growing problems as they relate to the production of vegetables, bedding plants, bulbs, nursery stock, potted plants, and cut flowers. Hands-on laboratory experience is provided.

HORT 1110 Perennials: Culture and Identification **2.5 – 1.5 – 3.0**
Prerequisite(s): (1) HORT 1100
This course includes the study of perennials in the landscape. Emphasis is placed on flower and leaf texture, color, proper location, soil, and blooming period. The course studies culture and environmental requirements to focus on 'right plant, right place'.

HORT 1111 Vegetable and Herb Gardening **2.5 – 1.5 – 3.0**
Prerequisite(s): (1) HORT 1100
The culture of vegetables and culinary herbs (olericulture) is introduced in this course. Both organic and inorganic ways of growing produce are presented with a hands-on experience. Crops are presented from seedlings and transplants to pest control and harvesting.

HORT 1112 Annuals: Culture and Identification **2.5 – 1.5 – 3.0**
Prerequisite(s): (1) HORT 1100
This course is a comprehensive study of annual bedding plants. Identification and culture are emphasized as well as propagation and appropriate use in the landscape.

HORT 1113 Turfgrass Management **2.5 – 1.5 – 3.0**
Prerequisite(s): (1) HORT 1100
This course includes the laboratory and discussion of the culture and care of turfgrass including residential, public, and intense-use areas. Emphasis is on the propagation, establishment, identification, watering, fertilizing, insects, diseases, and safe use of power tools for all grasses used in Nebraska turf.

HORT 1210 Trees: Culture and Identification **2.5 – 1.5 – 3.0**
Prerequisite(s): (1) HORT 1100
This course includes the study of characteristics, growth rate, care, and use of deciduous trees for landscaping purposes in the Midwest. The 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.

HORT 1211 Evergreens and Groundcovers: Culture and Identification 2.5 – 1.5 – 3.0
Prerequisite(s): (1) HORT 1100
This course covers both herbaceous and evergreen groundcovers and where they are able to grow. Students also study the broadleaf and needle evergreens with emphasis on 'right plant, right place'. Students learn about the correct pruning methods and tools and the right time of the year to do pruning and propagation.

HORT 1212 Shrubs: Culture and Identification 2.5 – 1.5 – 3.0
Prerequisite(s): (1) HORT 1100
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 bulb, and proper environment growth. Students develop an awareness of diseases and insects that might be a problem and learn pruning techniques and the proper time to spray along with the proper equipment to use.

HORT 1213 Ornamental Grass: Culture and Identification 2.5 – 1.5 – 3.0
Prerequisite(s): (1) HORT 1100
In this course, students study how to use ornamental grasses, rushes, and sedges in the landscape. Also covered are the correct environmental conditions so that placement in the landscape is 'right plant, right place'.

HORT 1214 Fruit: Culture and Identification 3.0 – 0.0 – 3.0
Prerequisite(s): (1) HORT 1100
Students study culture and selection of fruit trees, small fruits, and tree nut crops. This includes pollination requirements, fruiting characteristics, cultivar selections, and pruning techniques for orchards and vineyards.

HORT 1215 Interiorscaping and Houseplants 3.5 – 1.5 – 4.0
Prerequisite(s): (1) HORT 1100
The identification, use, and culture of tropical plants that are used in the home, office, and commercial interiorscapes are covered, incorporating the latest concepts, techniques, and equipment.

HORT 1300 Floral Design I 2.0 – 3.0 – 3.0
This course is an introduction to the art and mechanics of arranging fresh flowers. Emphasis is placed on floral identification and design basics to include color, texture, and form.

HORT 1310 Floral Design II 2.0 – 3.0 – 3.0
Prerequisite(s): (1) HORT 1300 or one year experience in design work
This is an advanced course in commercial floral arrangements for dinners, parties, receptions, weddings, and funerals.

HORT 1320 Floral Design III 2.0 – 3.0 – 3.0
Prerequisite(s): (1) HORT 1310
This is the capstone course for creative floral design. Fresh flowers, dried flowers, foliage, and skills for special occasions are covered.

HORT 1330 Floral Design IV 2.0 – 3.0 – 3.0
Prerequisite(s): (1) HORT 1320 or experience
This course provides advanced practice leading to excellence in designing for weddings, home decor, edible arrangements, funerals, parties, and tablescaping.

HORT 1410 Food Cultivation 1.0 – 6.0 – 3.0
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.

HORT 1600 Accounting for Horticulture 4.5 – 0.0 – 4.5
This course introduces students to the basic accounting skills that are necessary to run a small business. The accounting cycles of accounts receivable (A/R), accounts payable (A/P), payroll, and financial statement preparation are emphasized. In addition, the math of business is presented using everyday examples. Topics to be studied include percentages, discounts, mark-ups, sales tax, and interest and loan payment calculations. All class examples are slanted toward the horticulture industry.

HORT 1650 Therapeutic Horticulture 2.5 – 1.5 – 3.0
This course is the study of the history of restorative gardens and the benefits provided to the people. The emphasis is placed on therapeutic benefits to people working with plants and gardens.

HORT 2120 Plant Propagation by Seeds 2.0 – 3.0 – 3.0
Prerequisite(s): (1) HORT 1100
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. Students obtain hands-on experience with seed harvesting, handling, and germinating various plant species used in the seed production industry worldwide.

HORT 2121 Vegetative Plant Propagation 2.0 – 3.0 – 3.0
Prerequisite(s): (1) HORT 1100
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 in root, shoot, and callus formation. The commercial methods of vegetative propagation including cuttings, grafting, budding, layering, specialized structures, and micropropagation 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.

HORT 2130 Horticulture Business Operations 4.5 – 0.0 – 4.5
Prerequisite(s): (2) HORT 1100 and 18.0 hours of Horticulture classes
This class 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.

HORT 2216 Horticulture Diseases 4.5 – 0.0 – 4.5
Prerequisite(s): (1) HORT 1100
This course is an introduction to plant diseases of economic importance to horticultural crops. Identifying characteristics of diseases, life cycles, and integrated pest management (IPM) control methods are examined.

HORT 2217 Horticulture Insects 4.5 – 0.0 – 4.5
Prerequisite(s): (1) HORT 1100
This course covers detection, identification, and control of insects that damage ornamental plants. Identifying insect characteristics, life cycles, and integrated pest management (IPM) control methods are examined.

HORT 2420 Landscape Construction 2.0 – 3.0 – 3.0
Prerequisite(s): (1) HORT 1100
The details and construction of steps, walks, walls, fences, water features, and structures are studied. Selection and proper use of materials and tools for the construction of these features is a major part of this course along with proper planting of nursery stock used in landscaping.

HORT 2430 Residential Landscaping 2.0 – 3.0 – 3.0
Prerequisite(s): (3) HORT 1212, HORT 1211, and HORT 1210
This course studies all areas involved in planning and drawing residential landscapes including the proper use of drafting equipment. Solving landscaping problems, selling, correct placement of proper plant material, and different types of designs are covered. Students are required to submit completed designs.

HORT 2440 Advanced Landscaping 2.0 – 3.0 – 3.0
Prerequisite(s): (1) HORT 2430
This course offers a supervised laboratory in which students are required to complete landscape designs for public, commercial, or industrial sites. How to plan, sell, and price a complete landscape is taught, along with a hands-on introduction to computerized landscaping.

HORT 2450 Computer Landscape Design 2.0 – 3.0 – 3.0
Prerequisite(s): (1) HORT 2430
This course is an introduction to computer landscape design applications. Studies include computer-generated 2-D landscape plans and 3-D views of selected landscape areas, shading, colorization, and perspective drawings. Practice includes using design software to estimate, bid, and draft client proposals.

HORT 2520 Nursery and Garden Center Operations 3.0 – 0.0 – 3.0
Prerequisite(s): (1) HORT 1100
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, along with field production of perennials, bulbs, and groundcovers.

HORT 2521 Landscapes: Managing the Landscape Part I 3.0 – 0.0 – 3.0
Prerequisite(s): (1) HORT 1100
Co-requisite(s): (3) HORT 1210, HORT 1211 and HORT 1212
This three-part, specialized, comprehensive horticulture capstone training series is designed to equip students with an awareness of the relationship between horticulture, science, and ecology. Students gain an understanding of the interrelated problems associated with landscape and grounds management.

NOTE: The co-requisites HORT 1210, HORT 1211, and HORT 1212 must be taken concurrently or previously completed.

HORT 2522 Landscapes: Ecology and Sustainability Part II 3.0 – 0.0 – 3.0
Prerequisite(s): (1) HORT 1100
This three-part, specialized, comprehensive horticulture capstone training series is designed to equip students with an awareness of the relationship between horticulture, science, and ecology. This second course in the series covers the study of ecosystems, distribution patterns, and functions of ecology and sustainability in both residential and commercial landscaping.

HORT 2523 Landscapes: Environmental Part III **3.0 – 0.0 – 3.0**
Prerequisite(s): (1) HORT 1100
This three-part, specialized, comprehensive horticulture training series is designed to equip students with an awareness of the relationship between horticulture, science, and ecology. In this third course in the series, students study environmental landscaping using plant materials indigenous to the Midwest.

HORT 2530 Greenhouse Crop Production **2.0 – 3.0 – 3.0**
Prerequisite(s): (1) HORT 1100
This course is an introduction to greenhouse management. Various greenhouse structures and their maintenance regarding crop production are discussed. Numerous greenhouse crops and their specific requirements for commercial production are outlined.

HORT 2540 Flower Shop Operations **3.0 – 0.0 – 3.0**
This course covers basic flower shop arrangement, management, equipment, supply sources, and various marketing techniques.

HORT 2900 Special Topics in Horticulture **Variable**
Prerequisite(s): (1) instructor approval
Various topics not covered in other Horticulture courses are offered depending upon interest and relevancy to the curriculum. Such topics may include EPA certification, water gardening, permaculture, and rain gardens.

HORT 2981 Internship **0.0 – 15.0 – 3.0**
Prerequisite(s): (2) must have earned a minimum of 18.0 credit hours in Horticulture courses 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 in this course.

HORT 2991 Special Projects in Horticulture **0.0 – 3.0 – 1.0**
Prerequisite(s): (2) HORT 1100 and must be enrolled in the 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.

Humanities (HUMS)

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**
A survey of the development of Western Civilization focusing on human accomplishments in painting, sculpture, architecture, music, literature, religion, and philosophy. This course concentrates on the evolution of the western tradition during the classical period.

HUMS 1110 Origins of the Humanities **4.5 – 0.0 – 4.5**
The ancient non-Western cultures and societies that gave rise to Western civilization are explored. 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**
An interdisciplinary overview of the development of European culture focusing on human accomplishments in painting, sculpture, architecture, music, literature, religion, and philosophy from the Medieval period through the Renaissance.

HUMS 1130 Humanities II: Modern World **4.5 – 0.0 – 4.5**
An interdisciplinary overview of the development of European culture focusing on human accomplishments in painting, sculpture, architecture, music, literature, religion, and philosophy from the Enlightenment 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. This course addresses achievements of selected indigenous and non-indigenous cultures of the Americas.

HUMS 1150 Multi-Cultural Humanities II **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. This course addresses achievements of selected peoples and cultures of the Middle East, Africa, and Asia.

HUMS 2310 Film History and Appreciation **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) ENGL Level I, HUMS 1000, or instructor approval
This course explores the development of the film genre as an art form, an industry, and a system of representation and communication, as well as examining film theory and ideology. How film works technically, stylistically, aesthetically, and culturally are also major components of this course.

HUMS 2900 Special Topics in the Humanities **Variable**
Topics not covered by the other humanities courses are presented in HUMS 2900. These topics expand upon the relationships between culture and the visual or performing arts and the investigation of non-Western cultures.

Human Relations (HMRL)

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.

NOTE: The modular courses HMRL 101A, HMRL 101B, and HMRL 101C may be taken in any order and are (in combination) equivalent to HMRL 1010.

HMRL 101A Strategies for Personal and Workplace Communications **1.5 – 0.0 – 1.5**
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.

NOTE: The modular courses HMRL 101A, HMRL 101B, and HMRL 101C may be taken in any order and are (in combination) equivalent to HMRL 1010.

HMRL 101B Strategies for Personal Success in the Workplace **1.5 – 0.0 – 1.5**
This segment introduces students to the study of how human relations help achieve career success and increase work and life balance. One major focus of this segment emphasizes helping students to understand that attitudes represent a powerful force in life and within the workplace. In addition, the course examines how several human diversity factors may impact attitude formation and relationships in the workplace. Students achieve an understanding of self-motivation, constructive self-disclosure for building strong and healthy interpersonal relationships, the influence of emotions on thinking and behavior, and the factors that contribute to emotional balance and stronger relationships in the workplace.

NOTE: The modular courses HMRL 101A, HMRL 101B, and HMRL 101C may be taken in any order and are (in combination) equivalent to HMRL 1010.

HMRL 101C Strategies for Working with Others **1.5 – 0.0 – 1.5**
This segment introduces students to the study of how human relations help achieve career success and increase work and life balance. This segment emphasizes the importance of teamwork and examines the basic elements of the team-building leadership style, the sources of workplace conflict and conflict resolution, valuing diversity in the workplace, evaluating personal stress levels, and learning how to identify and implement effective stress management strategies. In addition, students examine how the traditional roles of both sexes are changing in today's world and workplace. Students examine traditional measures of success and evaluate for themselves a personal definition of career success.

NOTE: The modular courses HMRL 101A, HMRL 101B, and HMRL 101C may be taken in any order and are (in combination) equivalent to HMRL 1010.

HMRL 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 1060 Advanced Human Relations for Innovative Leaders **4.5 – 0.0 – 4.5**
Today's workplace is a dynamic, rewarding opportunity for the responsible leader. This course prepares students to assume increasingly responsible leadership roles in their personal and professional lives. Curriculum is based upon input from Omaha-area employers and includes a focus upon career development, oral and written communication for the workplace, service learning, leadership skills in teamwork, and building upon strengths as a catalyst for organizational achievement. As an advanced course in Human Relations, it is designed for anyone seeking to lead others in business or nonprofit organizations. Prior completion of HMRL 1010 Human Relations Skills or concurrent completion is recommended.

HMRL 2900 Special Topics in Human Relations **Variable**
This course permits instruction in special areas of interest within the Human Relations discipline.

Human Services (HMSV)

HMSV 1010 Introduction to Human Services **4.0 – 0.0 – 4.0**
This introductory course explores the human services field. Students are exposed to historical perspectives, ethics, and the role of the community support human service practitioner in various agencies and specific areas of human services employment.

HMSV 1110 Interpersonal Communication Skills **3.5 – 0.0 – 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. These skills are acquired through small group discussion with other students.

HMSV 1120 Helping Skills and Techniques **3.0 – 2.0 – 3.5**
Prerequisite(s): (1) HMSV 1110
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. Skills are acquired and demonstrated through videotaped role-plays, in-class role-plays, counseling critiques, case studies, and other experiential exercises.

HMSV 1130 Introduction to Counseling Theories **3.5 – 0.0 – 3.5**
Prerequisite(s): (2) HMSV 1120 and ENGL 1020
This course focuses on an examination of historical and current theories of counseling. Counseling theories include rational-emotive therapy, Gestalt therapy, reality therapy, and client-centered therapy. This course includes practice in utilizing counseling techniques and theories.

HMSV 1140 Assessment, Case Planning, and Management **3.0 – 2.0 – 3.5**
Prerequisite(s): (2) ENGL 1020 and PSYC 1010
This course includes the process of collecting pertinent data about client or client systems and their environment and appraising the data as a basis for making decisions regarding diagnosis, treatment, and referral of chemical dependency clients. Instruction on coordinating and prioritizing client treatment goals and working with other services, agencies, and resources to achieve those treatment goals is included. This course also includes practice in assessing and managing a case including the development of sample case records and utilizing the written client records to guide and monitor services with emphasis on the development of the social history and intake, initial assessment, individual treatment plan with measurable goals and objectives, documentation of progress and on-going assessment. Confidentiality of client information and records as defined in 42 CFR Part 2 is addressed. The strengths and weaknesses of various levels of care and the selection of an appropriate level for clients are studied. Basic information on two or more objective assessment instruments for alcohol or drug disorders such as the Michigan Alcoholism Screening Test (MAST), Substance Abuse Subtle Screening Inventory (SASSI), Addiction Severity Index (ASI), Mortimer-Filkins and others are studied.

HMSV 1150 Community Resources **3.5 – 0.0 – 3.5**
Prerequisite(s): (1) HMSV 1010 or CRIM 1010
This course is designed to provide 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(s): (1) ENGL 1020
Co-requisite(s): (1) PSYC 1010
This course includes the study of the physiological, psychological, and sociological aspects of alcohol and drug use, abuse, and dependence. The classifications and basic pharmacology of drugs, basic physiology, and the effects of drug use on the systems of the human body and alcohol and drug tolerance are discussed. This course also includes the etiological, behavioral, cultural, and demographical aspects and belief systems about alcohol and drug use along with the processes of dependence and addiction including signs, symptoms, and behavior patterns.

NOTE: 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(s): (2) HMSV 1130 and ENGL 1010
Co-requisite(s): (1) 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. Ethical codes of professional organizations are examined as well. These organizations include, but are not limited to, NOHSE, NAADAC, ADA, APA, ARCA, and NASW.

NOTE: The co-requisite HMSV 2150 must be taken concurrently or previously completed.

HMSV 2110 Group Counseling **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) ENGL 1020
Co-requisite(s): (1) 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(s): (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. The processes and skills necessary for examination and evaluation are emphasized. Social issues in the field of human service are explored and related to social policy.

HMSV 2130 Treatment Issues in Chemical Dependency **4.0 – 0.0 – 4.0**
Prerequisite(s): (2) HMSV 1160 and ENGL 1020
Co-requisite(s): (1) 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 (AA), Narcotics Anonymous, and the 12-step philosophies in alcohol and drug treatment; and the uniqueness of special populations including sexual orientation, cultural dimensions, adolescents, women, and the elderly and how that uniqueness affects assessment of, response to, and delivery of alcohol and drug treatment. Along with studying treatment issues specific to different populations, other aspects of chemical dependency treatment are discussed including treatment methodology and aspects of treatment that address resistance, denial, minimization, relapse and relapse prevention, cross-addiction, spirituality issues, and the influence of other self-help groups including 12-step groups.

NOTE: The co-requisite HMSV 1140 must be taken concurrently or previously completed.

HMSV 2140 Family Therapy **4.0 – 0.0 – 4.0**
Prerequisite(s): (2) HMSV 1130 and ENGL 1010
Co-requisite(s): (1) SOCI 1010
Theories of family therapy are reviewed with an emphasis on the systemic model of therapy. Theoretical approaches are applied 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(s): (1) ENGL 1020
Co-requisite(s): (1) 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. Attention is paid to multicultural barriers and to the impact of the counselor's own worldview on the counseling relationship. Adaptation of counseling techniques and theories to the needs of minority clients is examined.

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(s): (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(s): (2) ECED 1150 or HMSV 1010 and ENGL 1020
This course focuses on the identification, definition, and causes of exceptionalities. Concepts and trends in the field of exceptionalities, as well as laws pertaining to the rights and services of exceptional persons are emphasized.

HMSV 2310 Prepracticum **2.0 – 1.0 – 2.0**
Prerequisite(s): (6) HMSV 1010 or HMSV 1160, HMSV 1110, HMSV 1120, HMSV 1140, PSYC 1010, and ENGL 1010
Co-requisite(s): (1) HMSV 2050
This course focuses on factors necessary for the successful completion of a practicum. Topics in the course 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(s): (2) HMSV 1120 and ENGL 1020
The focus of this course is twofold: 1) to explore theories about crisis intervention and how to apply that theory in the field; and 2) to systematically improve the students' interview, communication, evaluation, and helping skills within the framework of crisis intervention and management.

HMSV 2900 Special Topics in Human Services **Variable**
Prerequisite(s): (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(s): (2) completion of all first-year courses as listed in the catalog and special admission requirements
This course provides students with field opportunities to expand and apply their practical and classroom experience. Along with the field experience, students are required to successfully complete a practicum seminar in conjunction with the assigned practicum.

HMSV 2992 Practicum II – General Human Services **0.0 – 15.0 – 5.0**
Prerequisite(s): (1) HMSV 2991
This course provides students with continued opportunities and experiences to integrate and apply classroom and textbook knowledge in addition to experiences from the first practicum. Along with the field experience, students are required to successfully complete a practicum seminar in conjunction with the assigned practicum.

HMSV 2993 Practicum III – General Human Services **0.0 – 15.0 – 5.0**
Prerequisite(s): (1) HMSV 2992
Practicum III provides students with 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 are required to successfully complete a practicum seminar in conjunction with the assigned practicum.

HMSV 2994 Practicum I – Chemical Dependency Counseling **0.0 – 15.0 – 5.0**
Prerequisite(s): (2) completion of all first year courses as listed in the catalog and special admission requirements
This course provides students with 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 are required to successfully complete a practicum seminar in conjunction with the assigned practicum.

HMSV 2995 Practicum II – Chemical Dependency Counseling **0.0 – 15.0 – 5.0**
Prerequisite(s): (1) HMSV 2994
This course provides students with the opportunity to expand their practical work experience in chemical dependency counseling. The College assigns students to agencies, institutions, or treatment centers serving and treating chemically dependent clients. Students are required to successfully complete a practicum seminar in conjunction with the assigned practicum.

HMSV 2996 Practicum III – Chemical Dependency Counseling **0.0 – 15.0 – 5.0**
Prerequisite(s): (1) HMSV 2995
This course provides students with the opportunity to expand their practical work experience in chemical dependency counseling. The College assigns students to agencies, institutions, or treatment centers serving and treating chemically dependent clients. Students are required to successfully complete a practicum seminar in conjunction with the assigned practicum.

Industrial and Commercial Trades (INCT)

INCT 0900 Introduction to the Trades 2.0 – 0.0 – 2.0
This course introduces students to the trades by examining the various employment paths available. The course includes classroom discussion, on-site tours, and guest presenters. Tools, fasteners, equipment, basic measurement, and shop safety are also covered.

INCT 1000 Industrial Safety and Health 4.5 – 0.0 – 4.5
This course covers the basics of industrial safety and health. Topics include lock out/tag out, confined space entry, blood-borne pathogens, hot work, ladder safety, and fall protection. Additional safe work practices and procedures are covered. Students who successfully complete this course are eligible to receive the OSHA 30-hour, general industry course completion card.

INCT 1010 Introduction to the Trades II Variable
This course is designed to introduce students to skills generally required for entry-level employment in the trades. Topics include, but are not limited to, 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 students eight hours of instruction in lead safety training as it applies to remodeling repairs and painting. This course uses curriculum developed by the EPA and HUD, but this is not an approved EPA or HUD RRP certification course.

INCT 1050 Mechanical Print Reading 4.0 – 0.0 – 4.0
This course is directed toward the development of skills required for visualizing and interpreting industrial prints and freehand technical sketching. Topics include identifying prints, drafting and print reading procedures, machining specifications, geometric dimensioning, and applied mathematics.

INCT 1212 Motor and Machine Controls 9.0 – 0.0 – 9.0
Prerequisite(s): (1) ELAP 1220 or ELTR 1200
This course introduces students to state-of-the-art motor control components and provides them 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. Devices such as contactors, motor-starters, relays, timers, mechanical, and proximity switches are used. Electronic motor controls and programmable devices such as variable frequency drives are introduced and utilized in this course.

INCT 1300 Floor Coverings 3.0 – 1.5 – 3.5
This course includes installation of ceramic tile, asphalt tile, vinyl floorings, carpet, and laminate floors. Repair of floor coverings is also covered.

INCT 1301 Home and Building Maintenance Carpentry 6.5 – 0.0 – 6.5
This course includes an introduction to maintenance carpentry. Areas of emphasis for this course include basic carpentry tools, tool safety, drywall hanging and patching, and suspended ceiling installation. A special emphasis is placed on insulation and weatherization.

INCT 1302 Stationary Engineering I 3.0 – 0.0 – 3.0
This course provides students with 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, identification of valves, faucets, and water heaters. Troubleshooting and repairs of typical plumbing problems are covered.

INCT 1304 Small Engine Repair 4.0 – 1.5 – 4.5
This course includes troubleshooting and repair of small gas engines and power equipment. The proper procedures for testing and repair of electrical components are covered.

INCT 1331 Information Transport Systems Level I 6.5 – 0.0 – 6.5
Prerequisite(s): (1) ELTR 1200
Students work with various types of insulation displacement terminations as well as wire wrapping. Codes and standards and how they apply to the information transport system are explained. Students work with various types of termination hardware and identify where it is used. Color codes and how they apply to the infrastructure, cable pulling, and various types of media used for the job are also covered.

INCT 1400 Introduction to Precision Machine Technology 6.0 – 1.5 – 6.5
Introduction to machines, tools, and processes associated with the machine trade are offered. Fundamentals in bench layout, basic machine tool operation and metal removal processes, measuring devices, and identification of equipment are covered.

INCT 1410 Precision Layout and Finishing 4.0 – 0.0 – 4.0
Prerequisite(s): (1) INCT 1400
Students gain experience in the operation of the standard upright drill press and horizontal and vertical saws. Different work-piece holding methods such as vises and fixtures are used in the process of drilling, reaming, counter-boring, and tapping.

INCT 1420 Basic Engine Lathe 4.0 – 0.0 – 4.0
Prerequisite(s): (1) INCT 1410
Students are involved in basic engine lathe operations including calculating speeds and feeds, rough turning, facing, center drilling, grooving, filleting, and cutting angles with compound rest. Special emphasis is on machine safety.

INCT 1421 Basic Milling Machine 4.0 – 0.0 – 4.0
Prerequisite(s): (1) INCT 1410
Students are instructed in 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(s): (1) INCT 1410
Instruction begins with 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. Basic accounting principles and contract law necessary for distribution are also introduced.

INCT 2050 Problem Solving 3.0 – 0.0 – 3.0
This course builds troubleshooting expertise for maintenance professionals and decision makers at all levels. Creative and critical thinking, problem solving, and troubleshooting are examined.

INCT 2060 Mechanical Power Systems 4.0 – 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. Transmission of fluid energy, identification of components, and controls are covered.

INCT 2231 Programmable Logic Controllers I 4.5 – 0.0 – 4.5
Prerequisite(s): (1) INCT 1212
This course introduces programmable logic controllers (PLCs). Various programmable control devices are covered. System components, installation, and introductory programming terms are covered. Students learn to monitor, upload, and download programs to processors.

INCT 2232 Programmable Logic Controllers II 4.5 – 0.0 – 4.5
Prerequisite(s): (1) INCT 2231
This course focuses on troubleshooting machine problems using the programmable logic controller. Search functions, timers, counters, and editing of existing programs are covered. Students learn to diagnose machine failures through the processor program.

INCT 2235 Programmable Logic Controllers Applications 9.0 – 0.0 – 9.0
Prerequisite(s): (4) INCT 1050, INCT 2060, INCT 2070, and INCT 2232
This course builds on the knowledge and skills learned in previous programmable logic controller courses. It covers programming analog devices and the integration and programming of operator interfaces such as digital displays and touch screens. The creation of machine files and documentation is covered and practiced, as well as the process of working from the rules of operation and creating a program. Students are challenged to write a program, test and de-bug the program, and commission a machine into final operation.

INCT 2302 Stationary Engineering II 4.0 – 0.0 – 4.0
Prerequisite(s): (1) INCT 1302
This course provides students with advanced instruction in steam boilers and related systems in the stationary engineering field. This course is a continuation of INCT 1302.

INCT 2410 CNC Milling 4.0 – 0.0 – 4.0
Prerequisite(s): (1) INCT 1410
Students focus on the basic fundamentals of programming and operation of the CNC (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, projects are completed with ease.

INCT 2420 Intermediate Engine Lathe 4.0 – 0.0 – 4.0
Prerequisite(s): (1) INCT 1420
Students learn the techniques of drilling, threading, boring, tapping holes, and reaming. 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 are emphasized.

INCT 2421 Intermediate Milling Machines 4.0 – 0.0 – 4.0
Prerequisite(s): (1) INCT 1421
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(s): (1) INCT 1422
Students learn operations using the standard surface grinder. The use of holding attachments, set-up work, and the grinding of material to predetermined sizes is featured.

INCT 2440 Advanced Machining Process **4.0 – 0.0 – 4.0**
Prerequisite(s): (2) INCT 1410 and INCT 2421
This class is to help students gain shop time experience and, at the same time, schedule and estimate time required for a project. A project is selected by each student and approved by the instructor. Students are given an 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(s): (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(s): (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 in this course.

Information Technology (INFO)

INFO 1001 Information Systems and Literacy **4.5 – 0.0 – 4.5**
This course introduces students to information systems and literacy concepts that are needed in the day-to-day academic course of study. Basic skills are developed using library, research, and office productivity software. Students learn computer file management by organizing, managing, and printing files; creating, editing, and formatting documents using a word processor; planning, developing, and validating basic worksheets such as editing cells and employing formulas using a spreadsheet; building basic slide presentations using headings, key phrases, notes, and displaying the presentation using presentation software; applying user-level security such as selecting passwords and securing the desktop; and using email to send and receive messages and attach documents. Information literacy concepts such as accessing information using library databases and the Internet and evaluating sources to determine validity and reliability of material are also part of this course.

NOTE: A basic understanding of computer systems is recommended before enrolling in INFO 1001. The 1.0 credit courses WORK 1310 and WORK 1320 are suitable preparation for persons with little or no computer experience. They focus on a very basic introduction to microcomputer usage and computer programs. The online sections of INFO 1001 are not recommended for students who have a weak foundation in computer use. Students who do not use computers or the Internet regularly should consider taking the course in the traditional classroom format.

INFO 1002 Introduction to Information Technology **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) INFO 1001 or GCAD 1020
This course explores various roles in information technology. Students examine the current areas of technology in the workplace such as helpdesk, networking, web, e-commerce, database management, programming, data center, and graphic arts. Related topics include current issues, communication, project management, flow charting, and diagramming.

INFO 1003 Introduction to Computer Programming **5.0 – 0.0 – 5.0**
Co-requisite(s): (1) INFO 1001
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 printer spacing charts, 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: The co-requisite INFO 1001 must be taken concurrently or previously completed. Students enrolling in INFO 1003 need to understand the basics of how to use a personal computer (use Windows, save files, and print documents).

INFO 1004 Introduction to e-Commerce **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) INFO 1001
This course introduces the concepts, vocabulary, and procedures associated with e-commerce and the Internet. Students gain an overview of all aspects of e-commerce. Topics include development of the Internet and e-commerce, options available for doing business on the Internet, features of websites and the tools used to build an e-commerce website, marketing issues, payment options, security issues, and customer service. (Cross-listed as BSAD 1004)

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 designed 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 GUI (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 practice effective telephone skills as well as written business communications. Some topics include using voice recognition, handwriting recognition, the personal digital assistant (PDA), and Microsoft Outlook software.

INFO 1010 Customer Service Skills **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) ENGL 1220
This course is designed to provide an in-depth look at the soft skills and self-management skills needed to provide effective customer service and support in all business environments.

INFO 1011 Project Management I **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) INFO 1001
Project management is the discipline of defining and managing the vision, tasks, and resources required to complete a project. This course provides an introduction to the project management process, resource management (time, money, and people), quality control, communications, and risk.

INFO 1012 Electronic Filing and Calculating **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) INFO 1001
Co-requisite(s): (1) 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 (ARMA). The course also covers financial records management including using the ten-key desktop electronic calculator for basic math problems, decimals, percents, fractions, combined operations, petty cash accounts, payroll, mark up and mark down, invoices, and banking records.

NOTE: The co-requisite MATH 1220 must be taken concurrently or previously completed.

INFO 1013 Keyboard Skillbuilding **1.5 – 1.5 – 2.0**
Prerequisite(s): (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 1021 Project Management II **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) INFO 1011
In this, the second of a two-course project management series, students learn advanced techniques and concepts in project management. Students complete projects utilizing project management software.

INFO 1023 Networking Essentials **4.5 – 0.0 – 4.5**
Prerequisite(s): (2) INFO 1002 and INFO 1110
The fundamentals of data communications, local area networking (LAN), and wide area networking (WAN) are described and discussed. Topics include network services, terminology, physical layer components, protocols, the OSI model, architecture standards, and WAN technologies. This course covers the objectives of the CompTIA Network+ certification.

INFO 1100 Introduction to Bioinformatics **4.5 – 0.0 – 4.5**
This course introduces the emerging topic of bioinformatics. It is an introductory class designed for students interested in survey-level knowledge of bioinformatics and its techniques. The course introduces how mathematics, statistics, computer science, chemistry, and biology are used to address problems of interest to bioinformatics.

INFO 1110 Operating Systems I **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) INFO 1001
This course teaches students how to effectively utilize the command-line interface (CLI), Microsoft Windows, Macintosh, and Linux operating systems to manage microcomputer operations. Emphasis is on defining basic operating system terminology, locating and using built-in help features, executing routine disk management and maintenance techniques, performing routine files and systems management, and the CLI. This course also introduces batch files and scripts. This course helps prepares students for the CompTIA A+ certification.

NOTE: Students with command-line interface experience have less difficulty with this course.

INFO 1111 Linux Operating Systems I **4.5 – 0.0 – 4.5**
Prerequisite(s): (2) INFO 1003 and INFO 1110
This course introduces students to the Linux operating system. Students learn about navigation of the file structure, communication methods, and fundamental concepts of Linux needed to use the system effectively. This course is the first step in preparing students to successfully achieve Linux+ Certification.

INFO 1112 Introduction to IBM i **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) INFO 1001
This course introduces students to the IBM i. It presents the architecture of the IBM i system. Features 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(s): (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(s): (3) INFO 1003, INFO 1011, and INFO 1110 or (2) ELEC 1210 and INFO 1110
This course, a continuation of the Operating Systems I course, provides a technical overview of operating systems and advanced disk and system management. Students install the operating systems and then optimize and protect them. The operating systems are considered as a stand-alone system, a client on a network, and a network operating system. The course reinforces Linux, batch file, and script concepts.

INFO 1121 Linux Operating Systems II **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) INFO 1111
This course is a continuation of INFO 1111. It describes advanced features of the Linux operating system. Topics include installing the Linux operating system, advanced shell programming, process creation and management, system administration duties, resource management, file systems, and other advanced Linux topics. This course is the final step toward student success in achieving Linux+ certification.

INFO 1131 Linux Networking I **4.5 – 0.0 – 4.5**
Prerequisite(s): (2) INFO 1023 and INFO 1120
This course is a comprehensive overview of the Linux operating system. Topics include networking, installing workstations and servers, and LAN administration. The textbook used is based on the skills needed to become Linux+ certified, which starts with basics such as device files and the file system and moves into topics such as the X Window System, RPMs, and TCP/IP.

INFO 1210 Microsoft Word I **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) INFO 1001
This course is used to explore the features of Microsoft Word to create, design, and produce professional documents. Emphasis is placed upon 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, working with multiple documents, using basic file management techniques, inserting graphic elements, and exploring the development of web pages are covered.

INFO 1212 Spreadsheet I **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) INFO 1001
This course is designed to teach 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.

INFO 1213 Database Fundamentals I **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) INFO 1001
Students are introduced to database operations using Microsoft Access. This course focuses on database concepts, creation of tables, queries, forms, and reports.

INFO 1214 Business Presentations **4.5 – 0.0 – 4.5**
Prerequisite(s): (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(s): (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. Emphasis is placed on planning and designing the layout of the document, correct formatting, proper spelling, grammar and punctuation, and increasing typing speed and accuracy.

INFO 1216 Call Center Operations I **2.0 – 0.0 – 4.5**
This course is an introduction to call center operations. Topics include industry definitions and vocabulary, types of call centers, workplace policies, and employer expectations. Further exploration includes the topics of customer care strategies, call center technology and equipment, and effective communication skills.

INFO 1220 Microsoft Word II **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) INFO 1210
This course is a continuation of 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 1222 Spreadsheet II **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) INFO 1212
This course is a continuation of INFO 1212. Students apply advanced design concepts such as goal seek, scenario manager, solver, data tables, consolidation, pivot tables, pivot charts, MS Query, macros, and web interactivity. This course completes the objectives for the Microsoft certification.

INFO 1223 Database Fundamentals II **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) INFO 1213
A continuation of INFO 1213, this course focuses on sharing and integrating Access with other software programs, creating and using action queries and advanced table relationships, automating tasks with macros, using and writing Visual Basic for Application code, and managing and securing a database. This course completes the objectives for the Microsoft certification.

INFO 1226 Call Center Operations II **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) INFO 1216
This course introduces students to typical call center operations in a simulated setting. Students gain experience in analyzing customer interactions to determine appropriate responses to all types of customer needs and requests. Simulated call center software and equipment allow the students hands-on practice with processing calls and inputting data. Additional emphasis is placed on teamwork, problem solving, and oral and written communication skills.

INFO 1240 Integrated Applications for the Helpdesk **4.5 – 0.0 – 4.5**
Prerequisite(s): (3) INFO 1002, INFO 1008, and INFO 1110
This course is designed to build on application skills learned in the prerequisite courses to enhance performance in a support environment. Students learn the problem resolution process using problem-based case learning (PBCL) as they explore additional file formats, data structures, and integration between applications. Information Technology Infrastructure Library (ITIL) concepts are also explored.

INFO 1311 XHTML and CSS **4.5 – 0.0 – 4.5**
Prerequisite(s): (2) INFO 1002 and INFO 1110
This course is designed to teach students how to create basic websites using XHTML and CSS specifications. Creating XHTML pages that include links, images, tables, multimedia, and forms is covered. Additional advanced features such as implementing web interactivity, JavaScript, Java applets, and server-side includes are discussed. 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(s): (1) INFO 1311
In this course, students learn to create, modify, and optimize graphics for use on websites. They create banners, buttons, background images, and advertisements. Photoshop tools are used to create vector graphics, edit bitmap graphics, work with layers, create image rollovers, slice images, create image maps, and export graphics. Animated GIF images are also covered.

INFO 1315 Interface Design **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) INFO 1311
This course serves as an introduction to usability principles and user-centered interface design. It looks at interface design from the perspective of content, page, site, screen, and visual design. Students learn the fundamentals of design and gain practical experience with visual layout. They 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.

INFO 1316 Dreamweaver **4.5 – 0.0 – 4.5**
Prerequisite(s): (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(s): (1) INFO 1002
In this course, students learn how to create, manage, and publish websites using Microsoft Expression Web. Students 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(s): (1) INFO 1314
Flash is the solution for producing high-impact, vector-based animation and interactivity for websites. In this course, students learn how to make websites that are fun, attractive, and interactive. Students 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 1400 Hardware, Disaster Recovery, and Troubleshooting **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) INFO 1120
This course is designed to teach students 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 (DRP) or business continuity plan (BCP).

INFO 1401 Introduction to Data Center Management **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) INFO 1023
This course introduces students to 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. Topics also include daily operations of a data center, which include monitoring power requirements and safety regulations.

INFO 1421 Virtualization, Remote Access, and Monitoring **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) INFO 1120 or INFO 1801
This course introduces students to both hardware and software methods used to implement virtualization and the server specifications required to implement it. Multiple vendor solutions are explored. Students 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(s): (1) INFO 1401
This course introduces students to possible solutions for power, cooling, rack, and cabling infrastructure in a data center. Topics include the basics of power and cooling, cabling installation, management strategies, and maintenance practices. Students also learn about rack standards, types, selection, and best practices for green data centers.

INFO 1505 Introduction to Robotics **3.0 – 4.5 – 4.5**
Prerequisite(s): (1) INFO 1001
This course enables students to use readily available robotic kits to design, construct, and program robots or other mechatronic systems that interact directly with the real world. Students explore the mechanical, electronic, and software aspects of these systems.

INFO 1515 Programming for Robotics I **3.0 – 4.5 – 4.5**
Prerequisite(s): (2) INFO 1003 and INFO 1505
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.

INFO 1521 Java Programming I **4.5 – 0.0 – 4.5**
Prerequisite(s): (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(s): (1) INFO 1003
This course introduces the C++ programming language. Problem solving using structured design is emphasized. Various features of the C++ language such as conditions, logical expressions, selection control structures, looping, functions, and variable scope are covered. Students use modular programming techniques to solve a variety of problems.

INFO 1523 Visual Basic.NET I **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) INFO 1003
This course introduces students to programming the graphical user interface (GUI) using Visual Basic.NET. Visual Basic.NET is used to develop applications with graphical windows, create applications that work with databases, create web applications, and create applications that display graphics. 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(s): (1) INFO 1003
In this course, 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(s): (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 Visual C# Programming I **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) INFO 1003
This course introduces students to programming the graphical user interface (GUI) and console applications of Microsoft Visual C# (C-Sharp) programming using the current Visual Studio.NET environment. Visual C# programming is used to develop a variety of applications with graphical, client interfaces, and console programs are used to perform programming tasks. Emphasis is on 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.

INFO 1531 Java Programming II **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) INFO 1521
This course is a continuation of Java Programming I and is designed 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(s): (1) INFO 1522
This course is a continuation of C++ Programming I. Topics covered include 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(s): (1) INFO 1523
This course continues Visual Basic.NET I with programming in a graphical user interface (GUI) environment using Visual Basic.NET. Additional emphasis is on gaining an understanding of proper design, placement of controls, and coding of the GUI. Also covered are 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(s): (2) INFO 1524 and INFO 1620
This course is a continuation of COBOL I. 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 1535 IBM i RPG Programming II **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) INFO 1525
In this course, students learn how to use IBM i RPG advanced programming features. The course includes interactive processing, DDS creations for display files, RPG data structures, data areas, DDS for printer files, printer file processing, and error handling procedures. New topics or technology in the IBM i area are also covered.

INFO 1536 Visual C# Programming II **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) INFO 1526
This course is a continuation of Visual C# Programming I. More advanced topics presented include XML, database, text and binary file access, datasets, and user interfaces.

INFO 1620 Database Design, Implementation, and Management **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) INFO 1003
This course is an introduction to database design, implementation, and management. In this course, the basics of database design and manipulation are covered. 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.

INFO 1700 Introduction to Gaming **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) INFO 1001
This hands-on course introduces students to gaming concepts. It requires students to create game experiences by creating rules, using interactive mode, and learning the different types of challenges. Students engage in thought and planning about design through discussion of the process of creating a narrative for a game, traditional story structure, story elements, plot, and game story devices. Additional topics include application, platform, time interval, player mode, genres, and marketing the game.

INFO 1710 Developing Games and Graphics **4.5 – 0.0 – 4.5**
Prerequisite(s): (2) INFO 1003 and INFO 1700
In this course, students create basic computer games employing programming fundamentals. Students develop a game engine, create and animate 3-D models, develop collision detection and ballistics, and other gaming techniques. This course requires a foundation in programming logic and an introduction to the Visual C# programming language.

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). The course introduces students to personal computer hardware and software and presents the fundamental skills and concepts needed on the job as an IT technician. Other 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(s): (1) INFO 1801
This course is a continuation of INFO 1801. Students are provided 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 1821 A+ Software Certification Prep **4.5 – 0.0 – 4.5**
This course prepares students to get CompTIA A+ Certification. The course includes best practices when studying and taking certification tests. This course is only available for students enrolled in the accelerated online degree.

INFO 2122 UNIX Scripting I **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) INFO 1111
This course is an introduction to writing shell scripts using Bourne-again shell (Bash). 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.

INFO 2135 Network Infrastructure **4.5 – 0.0 – 4.5**
Prerequisite(s): (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 (MCTS) and Microsoft Certified IT Professional (MCITP) 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(s): (1) INFO 2135
This server administration course introduces students to the Microsoft Windows Server 2008 Active Directory and prepares them to plan, configure, and administer one. The course uses Windows Server 2008 and mapping to the Microsoft Certified Technology Specialist (MCTS) 70-640 certification exam.

INFO 2145 Windows Server Administration **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) INFO 2142
Microsoft Windows server administrators manage the infrastructure, web, and IT application servers. This course introduces students to 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 Integrated Microsoft Office **5.0 – 0.0 – 5.0**
Prerequisite(s): (3) INFO 1210, INFO 1212, and INFO 1213
This course focuses on advanced-level usage of the Microsoft Office suite of programs, including Word, Access, Excel, and PowerPoint. Students use the programs independently and also integrate features from the Office suite components to complete a variety of office documents and tasks, including presentations to the class. In addition, students use the Internet to research ideas and find information. Students enrolling in this class should have extensive experience using the Microsoft Office software included in this course.

INFO 2241 Business Practices **3.0 – 0.0 – 3.0**
Prerequisite(s): (2) INFO 1001 and ENGL Level I
This course provides students the opportunity to acquire knowledge and skills in the area of office practices and to discuss trends, issues, and policies of today's business environment. Other course content includes diversity issues, business ethics, business etiquette and protocol, decision-making strategies, problem-solving techniques, personal organization, professional image, stress management control, sexual harassment, and communication through body language.

INFO 2260 Networks, Applications, and Technology in the Workplace **4.5 – 0.0 – 4.5**
Prerequisite(s): (4) INFO 1110, INFO 1210, INFO 1212, and INFO 1213
In this course, students learn concepts such as computer systems, operating systems, networked applications, and emerging technologies. This is a hands-on class that should be taken in the last two quarters of degree requirements. Students should already have the skills necessary to create and manipulate files using word processing, spreadsheet, and database software.

INFO 2261 Software Applications Support **4.5 – 0.0 – 4.5**
Prerequisite(s): (2) INFO 1120 and INFO 2351
In this course, students install and use software applications concentrating on interoperability and meeting specific criteria. Computer management and problem-solving techniques are reviewed. The use of knowledge and incident management software while applying customer support skills is also included. This hands-on class should be taken in the last two quarters of degree requirements.

INFO 2340 Internet Scripting and Databases **4.5 – 0.0 – 4.5**
Prerequisite(s): (3) INFO 1003, INFO 1315, and INFO 1620
This course explores various technologies available for utilizing scripts in a web environment; VBScript, JavaScript, ASP, and PHP are among the scripting languages examined. Students look at the benefits of integrating AJAX into web applications. Students study different methods to connect to multiple databases and use best practices to maintain database integrity and security.

INFO 2351 Introduction to XML **4.5 – 0.0 – 4.5**
Prerequisite(s): (2) INFO 1003 and INFO 1315
This course teaches students how to retrieve and manage data while constructing well-formed and valid XML documents. The use of document type definitions and XML schema recommendation are also included in this course.

INFO 2362 Web and Server Applications Security **4.5 – 0.0 – 4.5**
Prerequisite(s): (2) INFO 1023 and INFO 1311
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 development workstations. Discussion centers on best practices, and students use a variety of utilities and methodologies to build, test, and defend all computers in the enterprise environment.

INFO 2401 Applied Data Center Management **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) INFO 1401
Using a problem-based learning (PBL) or CASE student approach, students define project requirements, research issues, and design data center projects that meet identified 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 2505 Programming for Robotics II **4.5 – 0.0 – 4.5**
Prerequisite(s): (2) INFO 1515 and INFO 1522
This course continues INFO 1515. Students gain hands-on experience designing, writing, and deploying advanced-level behavioral-based programming for robots. Through the use of the Lego Mindstorms NXT and VEX educational robots, students examine how a modular decomposition of logical thought can evolve into the development of human-like learning for robots.

INFO 2521 Intel Assembly Language I **4.5 – 0.0 – 4.5**
Prerequisite(s): (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(s): (1) INFO 2521
This course continues and extends the topics and skills presented in INFO 2521. Additional topics include macros to create both system-level software tools and application programs to manipulate computer hardware and to create an interaction between assembly language programs, operating systems (MS Windows, MS-DOS, and others), and application programs developed in C++ and other high-level languages.

INFO 2537 Data Structures Using C and C++ **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) INFO 1532
This course continues INFO 1532 C++ Programming II as well as 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(s): (1) INFO 1521, INFO 1522, INFO 1523, or INFO 1524

In this course, 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 2539 Mobility Networks Programming **4.5 – 0.0 – 4.5**

This course introduces students to the evolving data mobility networks and basic programming concepts in the industry. A study of telecommunications networks from a historical perspective through next generation and disruptive technologies is covered to include 2G, 3G, and 4G/LTE networks; WiFi; WiMax; Bluetooth; and RFID. Additional topics include regulation, standards, security, and technologies in use today as well as future trends. This course gives students hands-on experience with basic programming concepts for mobility devices.

INFO 2549 IBM i Control Language Programming **4.5 – 0.0 – 4.5**

Prerequisite(s): (2) INFO 1003 and INFO 1112

This course introduces students to the IBM i control language (CL). Students learn the syntax rules for the commands and how to use them in a CL program. Other topics include basic error handling, passing program parameters, file and data areas, message handling, file overrides, and command prompting. This course also covers any new topics or technology in the IBM i area.

INFO 2621 IBM i DB2 Database Management I **4.5 – 0.0 – 4.5**

Prerequisite(s): (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. An introduction to data modeling and design is also presented. This course also covers any new topics or technology in the IBM i area.

INFO 2630 Structured Query Language (SQL) **4.5 – 0.0 – 4.5**

Prerequisite(s): (1) INFO 1620

In this course, students gain the skills needed to access and manipulate data in a relational database management system. Basic through advanced-level SQL commands are covered. Students explore various DBMS SQL environments.

INFO 2631 IBM i DB2 Database Management II **4.5 – 0.0 – 4.5**

Prerequisite(s): (1) INFO 2621

This course continues INFO 2621. Topics covered include SQL-400; advanced data management topics such as referential constraints, journaling, and commitment control; security issues; and backup and recovery. This course also covers any new topics or technology in the IBM i area.

INFO 2632 Oracle SQL **4.5 – 0.0 – 4.5**

Prerequisite(s): (1) INFO 1620

In this course, students gain the skills needed to access and manipulate data in the Oracle database management system. Basic- through advanced-level SQL commands are covered. The course is designed 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(s): (1) INFO 2630

This course provides students with 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(s): (1) INFO 2630

This course introduces students to 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(s): (1) INFO 2630

This course introduces students to the SQL Server relational database management system. Topics include SQL Server architecture, stored procedures and triggers, retrieving and maintaining data used for Transact-SQL, and creating database applications. Various SQL server tools are also explored.

INFO 2651 Oracle Database Administration **4.5 – 0.0 – 4.5**

Prerequisite(s): (1) INFO 2640

This course gives students 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 2710 Advanced Game Design **4.5 – 0.0 – 4.5**
Prerequisite(s): (2) INFO 1526 and INFO 1710
Students learn to develop games based on the XNA technology build in previous courses. Students study artificial intelligence and 3-D animation, among other gaming techniques, to build a game for the Xbox 360.

INFO 2740 Oracle Web Application Development **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) INFO 2640
This course provides students with advanced skills in Oracle PL/SQL programming and web application development. Students use PL/SQL and will 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(s): (1) 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 2761 Java Servlets and JSP **4.5 – 0.0 – 4.5**
Prerequisite(s): (2) INFO 1311 and INFO 1521
This course introduces students to the creation and use of Java servlets and Java Server Pages (JSP). Students use IBM WebSphere Studio and/or Eclipse software to develop web pages using servlets and JSP. Students learn how to interact between HTML, XML, and databases with Java.

INFO 2801 Networking Security **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) INFO 2261 or INFO 2135
This course provides students with knowledge of network security to include system security, network infrastructure, access control, and organizational security. It provides the skills necessary to protect systems and wired and wireless networks from threats, risks, and attacks. Students gain proficiency in authentication, assessments, audits, and cryptography. This course helps prepare students for the CompTIA Security+ Certification.

INFO 2805 Network and Information Security Basics **4.5 – 0.0 – 4.5**
This course is a survey of network and information security. Network topics include threat assessment, risk management, establishing and managing network security policy, user training, security models, objectives, architectures, and the investigative process. Information security topics such as constitutional issues, applicable laws, and right and rules of evidence are covered. 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 detections systems (IDS) 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 methods for defending a network. Students focus on the concepts of firewalls including packet filtering, proxy firewalls, application gateways, circuit gateways, and stateful inspection. Hands-on experience with a variety of hardware and software firewalls is offered.

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(s): (1) instructor approval
This course provides students with 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. This course is to be taken only after the other five security courses have been completed successfully or when students have professional experience with the topics that those courses represent.

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(s): (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 Program.

NOTE: This course should be taken during the final quarter of the program.

INFO 2941 e-Commerce Capstone **4.5 – 0.0 – 4.5**
Prerequisite(s): (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. (Cross-listed as BSAD 2941)

NOTE: Students should have completed all of the general education, major, and concentration requirements before enrolling in this, the final course for the e-Commerce program.

INFO 2942 Networking Capstone **4.5 – 0.0 – 4.5**
Prerequisite(s): (2) INFO 2261 and INFO 2801 or instructor approval
In this capstone course, students apply the knowledge gained in previous courses in a simulated work environment in order to explore and implement techniques and approaches that lead to solutions for hardware and software problems. Students work with other students to coordinate, document, and implement solutions for other INFO capstone courses. As some students may be working from remote locations, students communicate and work in multiple settings. All solutions are implemented using a virtual server environment.

NOTE: This is a hands-on course and should be taken during the last two quarters of the program.

INFO 2943 IBM i Capstone **4.5 – 0.0 – 4.5**
Prerequisite(s): (2) INFO 1535 and INFO 2549 or instructor approval
This course is a final project course to capstone the IBM i degree requirements. Students complete an assigned project that incorporates RPG programming, database management and development, and CL programming. This course covers any new topics and new technology in the IBM i area.

NOTE: It is recommended that INFO 2631 be taken either before or at the same time.

INFO 2944 Web Development Capstone **4.5 – 0.0 – 4.5**
Prerequisite(s): (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 2945 Database Design and Administration Capstone **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) instructor approval
This course gives students the opportunity to integrate the skills and knowledge acquired throughout the database curriculum. Students develop, manage, and execute a programming project from conception to delivery for production. This is the final course for the Database Administration program.

INFO 2947 Embedded Systems Capstone **4.5 – 0.0 – 4.5**
Prerequisite(s): (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. Collaborative skills such as group dynamics, negotiation, meeting techniques, and tools are emphasized.

NOTE: Students should have completed all of the general education and major requirements before enrolling in this, the final course for the Embedded Systems program.

INFO 2981 Internship **Variable**
Prerequisite(s): (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 in this course.

INFO 2982 Microsoft Office Simulation **4.0 – 0.0 – 4.0**
Prerequisite(s): (1) INFO 2240
This course is the capstone course for students who plan to work in office environments. Students work individually and collaboratively as team members learning to analyze and manipulate data, prepare mailable materials, and determine appropriate media through which to communicate.
The Microsoft Office Professional Suite is used for this simulation as well as an operating network.

INFO 2983 Helpdesk Capstone **4.5 – 0.0 – 4.5**
Prerequisite(s): (2) INFO 1240 and INFO 2261 or instructor approval
This course simulates common issues and situations found in a helpdesk or an IT support environment. Students extract data from common user interfaces such as web, email, phone, and in-person contact; evaluate necessary actions; and follow through to user resolution. Extensive use of knowledge and incident management software is included. Appropriate methods by which to deal with customers professionally while acquiring data needed for resolution or elevation to upper-level IT support personnel are discussed.

INFO 2984 IT Student Assistant **Variable**
Prerequisite(s): (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 2985 Call Center Practicum I **4.0 – 0.0 – 4.0**
Prerequisite(s): (1) INFO 1226
This course allows for advanced development of the technical and soft skills needed for success in the call center industry. Students combine call center job shadowing, classroom simulated practice, and advanced projects to ensure readiness for the on-site practicum.

INFO 2986 Call Center Practicum II **4.0 – 0.0 – 4.0**
Prerequisite(s): (1) INFO 2985
This capstone course provides students with the opportunity to apply skills learned from previous coursework to participate as an on-site customer service representative in a controlled call center environment.

INFO 2990 Data Center Management Internship **4.5 – 0.0 – 4.5**
Prerequisite(s): (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. Students are directed by an assigned instructor.

NOTE: This course should be taken during the final quarter of the program.

Insurance (INSU)

INSU 1000 Principles of Health and Life Insurance **4.5 – 0.0 – 4.5**
This is a comprehensive survey of the technical and socioeconomic aspects of the life and health insurance business. Coverage, marketing, underwriting, pricing, funding alternatives, contracts, claims, program design concepts, and administrative systems and procedures are included.

INSU 1100 Principles of Property and Casualty Insurance **4.5 – 0.0 – 4.5**
This course serves as an introduction to the field of property and casualty insurance and the needs of individuals or organizations for various categories of protection. Areas of emphasis include fire, accident, theft, property damage, and liability insurance, as well as the legal environment of insurance products. Students are also introduced to the basic concepts of product design, underwriting, pricing, marketing, and claim administration. (Cross-listed as FINA 1100)

INSU 2421 Insurance Law **4.5 – 0.0 – 4.5**
This course is a study of laws and state regulation of insurance. Topic areas 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(s): (1) instructor approval
This course permits instruction in special content areas that are not included in other Insurance courses.

Interior Design (INTD)

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(s): (1) INTD 1100
This course is an introduction to the basic concepts of visual perception and the elements and principles of composition. Emphasis is placed on selecting, arranging, and ordering design elements to achieve aesthetic and functional interior spaces. Experimental projects are assigned to be completed using a variety of design techniques.

INTD 1220 Interior Design II **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) INTD 1210
This course is a study of the knowledge, judgment skills, and application skills necessary for identifying, coordinating, arranging, and calculating the need requirements of the following components of interior design: furniture, window treatments, wall and ceiling surfaces, flooring, and lighting. Portfolio items are developed using drafting and art techniques.

INTD 1230 Interior Design III **2.0 – 3.0 – 3.0**
Prerequisite(s): (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. Color relationships and application to various interior environments are explored 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. Emphasis is on 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(s): (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, furniture, 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(s): (1) INTD 1230
In this course, students examine the purpose and principles of developing one-point and two-point perspective renderings of interior space from correlated basic floor plans and sample boards. Students use drafting, art techniques, and computer software to create portfolio items.

INTD 2250 Commercial Design **3.0 – 3.0 – 4.0**
Prerequisite(s): (1) INTD 1230
This course is an introduction to the study of commercial interior design. Consideration is given to special needs and specifications for commercial interiors. Students demonstrate proficiency through the development of individual portfolio items.

INTD 2520 Professional Practice **3.0 – 0.0 – 3.0**
Prerequisite(s): (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(s): (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 of the Interior Design program.

INTD 2940 Interior Design IV **2.0 – 3.0 – 3.0**
Prerequisite(s): (1) INTD 1230
This capstone course stresses development and refinement of portfolio elements into a presentation-ready package. Résumé and interview skills for entry-level interior design work is also emphasized. Students also refine interior design skills through more specialized and detailed space planning projects.

INTD 2981 Internship **0.0 – 120.0 – 3.0**
Prerequisite(s): (1) completion of 30.0 or more hours in the Interior Design program
In this internship course, 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. Students 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 in this course.

Japanese (JAPN)

JAPN 1010 Beginning Japanese I **7.5 – 0.0 – 7.5**
In this course, students learn basic skills in the Japanese language: comprehension, pronunciation, speaking, listening, grammar, and vocabulary. Reading and writing the hiragana and katakana scripts and 100 basic kanji characters are included. The emphasis is on developing proficiency in speaking and listening.

JAPN 1020 Beginning Japanese II 7.5 – 0.0 – 7.5
Prerequisite(s): (1) JAPN 1010 or its equivalent
This course is a continuation of JAPN 1010. The focus is on the fundamentals of the Japanese language with additional emphasis on reading and introduction of 200 additional kanji characters.

JAPN 2010 Intermediate Japanese I 4.5 – 0.0 – 4.5
Prerequisite(s): (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. In this course, students learn intermediate and everyday functional skills in speaking, listening, reading, writing, comprehension, and vocabulary.

JAPN 2020 Intermediate Japanese II 4.5 – 0.0 – 4.5
Prerequisite(s): (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. In this course, students learn intermediate and everyday functional skills in speaking, listening, reading, writing, comprehension, and vocabulary.

JAPN 2030 Intermediate Japanese III 4.5 – 0.0 – 4.5
Prerequisite(s): (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. In this course, students learn intermediate and everyday functional skills in speaking, listening, reading, writing, comprehension, and vocabulary.

JAPN 2040 Intermediate Japanese IV 4.5 – 0.0 – 4.5
Prerequisite(s): (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. In this course, students learn intermediate and everyday functional skills in speaking, listening, reading, writing, comprehension, and vocabulary.

JAPN 2900 Special Topics in Japanese Variable
Prerequisite(s): (1) instructor approval
Topics not addressed in the other Japanese courses may be offered in JAPN 2900. Examples include advanced grammar, intensive conversation and pronunciation, business practices, culture, and customs.

Languages and Language Interpretation (LANG)

LANG 1100 Omaha Tribal Language I 4.5 – 0.0 – 4.5
This is a beginning course that introduces students to the basic phonetic structure of the Omaha Tribal Language. Total Physical Response (TPR), an approach which includes speaking, listening, and action (whole body movement), is used in class. Omaha tribal tradition, customs, and values are woven into the course, and a field trip to attend a tribal ceremony integrates course concepts.

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 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(s): (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(s): (3) LANG 1110, LANG 1120, and LANG 1130
In this course, 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(s): (3) LANG 1110, LANG 1120, and LANG 1130
In this course, 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(s): (3) LANG 1110, LANG 1120, and LANG 1130
In this course, 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 in the course.

LANG 2140 Simultaneous Interpretation – Community **4.5 – 0.0 – 4.5**
Prerequisite(s): (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(s): (3) LANG 1110, LANG 1120, and LANG 1130
In this course, 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(s): (3) LANG 1110, LANG 1120, and LANG 1130
In this course, 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(s): (3) LANG 1110, LANG 1120, and LANG 1130
In this course, 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 in the course.

LANG 2240 Simultaneous Interpretation – Legal **4.5 – 0.0 – 4.5**
Prerequisite(s): (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(s): (3) LANG 1110, LANG 1120, and LANG 1130
In this course, 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(s): (3) LANG 1110, LANG 1120, and LANG 1130
In this course, 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(s): (3) LANG 1110, LANG 1120, and LANG 1130
In this course, 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 in the course.

LANG 2340 Simultaneous Interpretation – Medical **4.5 – 0.0 – 4.5**
Prerequisite(s): (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**
Topics not normally addressed by the other language courses may be offered in LANG 2900. Examples include language interpretation, intensive conversation, and advanced grammar.

Legal Studies (LAWS)

LAWS 1100 The Paralegal Profession 4.5 – 0.0 – 4.5
A survey of the legal environment including law office procedures, duties and limitations of paralegals, professional responsibilities and expectations, interpretation of statutes and regulations, client relationships, legal ethics, and confidentiality. There is also focus 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 verses civil procedures, and the elements of a trial.

LAWS 1110 Litigation 4.5 – 0.0 – 4.5
Prerequisite(s): (3) admission to Paralegal program, LAWS 1101, and LAWS 1100 or Pre-Law major
This course is a survey of the process of pursuing a civil action through the legal system. Topics covered include choice of courts, jurisdiction, venue, pleadings and related motions, discovery, pre-trial actions and preparation, and trial and appellate procedures. Emphasis is on the paralegal's role in gathering and organizing materials, interviewing and investigating, drafting complaints, answering interrogatories, pleadings, 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(s): (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(s): (4) ENGL 1010, ENGL 1020, LAWS 1101, and LAWS 1110 or instructor approval
Students are introduced to 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(s): (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(s): (1) LAWS 1110
Torts is a study of the concept of legal wrongs and their treatment in law to include the intentional torts, negligence, and strict liability as applied to persons, property, and business. Specific topics considered include assault and battery, false imprisonment, invasion of privacy, trespasses, breach of contract, contributory negligence, assumption of risk, no-fault systems, and workers' compensation.

LAWS 2322 Family Law 4.5 – 0.0 – 4.5
Prerequisite(s): (1) LAWS 1110
Family Law is a study of laws affecting family-related matters such as divorce, separation, child custody and support, adoption, guardianship, and legal rights of women.

LAWS 2323 Employment Law 4.5 – 0.0 – 4.5
Prerequisite(s): (1) LAWS 1110
This includes a study of laws, regulations, and agencies governing employment practices, discrimination, labor unions, child labor, employee benefits, occupation safety and health, equal employment opportunity, and affirmative action.

LAWS 2324 Criminal Law and Procedures 4.5 – 0.0 – 4.5
Prerequisite(s): (1) LAWS 1110
History and philosophy of criminal law, including the definition and classification of crimes and the criminal justice system, constitutional limitations, and criminal procedure and its sources, application, and impact in criminal law are researched.

LAWS 2325 Bankruptcy, Credit, and Collections Law 4.5 – 0.0 – 4.5
Prerequisite(s): (1) LAWS 1110
A study of the laws governing bankruptcy acts, voluntary and involuntary petitions, liens, preferences, powers of trustee, rights of debtors and creditors, liquidations, the discharge of bankruptcy, and a review of the legal avenues for collection of debts including garnishments and seizures.

LAWS 2326 Evidence and Discovery 4.5 – 0.0 – 4.5
Prerequisite(s): (1) LAWS 1110
This includes an examination of the rules governing admissibility of evidence that must be followed in the examination of witnesses and in the production of documents, including the concepts of relevance, expert witness, hearsay, materiality, and privilege. Also studied are the tools and procedures of pre-trial discovery including depositions, interrogatories, production of documents, physical and mental examinations, and requests for admissions.

LAWS 2327 Immigration Law **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) LAWS 1110
Immigration Law 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(s): (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(s): (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(s): (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. Emphasis is on 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(s): (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(s): (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. A 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. Notebook entries are periodically reviewed by both the work supervisor and the Legal Studies Program Coordinator to assure that competencies appropriate to the role of the paralegal are being developed. Based on state guidelines, students must complete 40 hours of work for each credit hour in this course.

LAWS 2982 Internship II **0.0 – 20.0 – 4.0**
Prerequisite(s): (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 in this course.

Mathematics (MATH)

In order to register for a Math course at MCC, every student must provide ACT/SAT scores or take the Math Assessment Test. Contact one of the Testing Centers—Elkhorn Valley Campus (402) 289-1278, Fort Omaha Campus (402) 457-2204 or South Omaha Campus (402) 738-4613—to make an appointment to take the test. For times or other locations, log on to www.mccneb.edu/testing.

Prior to taking the assessment test, students should brush up on their math skills. Contact MCC's Math Centers for assistance—Elkhorn Valley Campus (402) 289-1436, Fort Omaha Campus (402) 457-2475, Fremont Area Center (402) 317-3040, Sarpy Center (402) 537-3864 or South Omaha Campus (402) 738-4531. For room locations and hours of operation, log on to www.mccneb.edu/mathcenter.

Excellent resources are available to brush up in math areas for basic math, introduction to algebra, and/or intermediate algebra assessment preparation. Students can drop in at the Math Centers to use these resources for practice or review to prepare for the assessment test.

Students wishing to attempt an online or hybrid math class should refer to the online course website to see if they have the required skills to work in an online environment: www.mccneb.edu/elearning.

Math courses require a heavy time commitment. Students should be certain they have adequate time available to work on these courses in addition to the scheduled class period.

It is best to take math courses in consecutive quarters, if possible, so that continuity of material is not lost.

MATH 0900 Basic Arithmetic **3.0 – 0.0 – 3.0**
Prerequisite(s): (1) within two years prior to beginning the course, MCC Placement Test
Study skills for mathematics, student learning styles, and math anxiety are addressed in this course. Required 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(s): (1) within two years prior to beginning the course, either successful completion of MATH 0900 with a grade of P or MCC Placement Test

Basic computational skills are presented for either review or initial mastery by the students. Required 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 use at MCC only; the credit does not transfer nor does it apply toward graduation.

MATH 0921 Beginning Algebra Part 2 **5.0 – 0.0 – 5.0**

Prerequisite(s): (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 begins with a review of solving linear equations and their applications. Required topics include integer exponents, operations with polynomials, factoring, rational expressions, equations of lines, and graphing of equations and inequalities. This class will be offered for the final time during the 2011 Fall quarter and be replaced by MATH 0931 starting during the 2011 Winter quarter.

MATH 0930 Beginning Algebra Part I **4.0 – 0.0 – 4.0**

Prerequisite(s): (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 designed for students who need to learn basic algebra skills. Required topics include positive and negative real numbers, solving linear equations and inequalities, and applications of linear equations. (Formerly MATH 0920)

NOTE: MATH 09XX courses carry credit for use at 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(s): (1) within two years prior to beginning the course, either successful completion of MATH 0920 or MATH 0930 with a grade of P or MCC Placement Test

Required topics include integer exponents, operations with polynomials, factoring, rational expressions, equations of lines, and graphing of equations and inequalities. This course replaces MATH 0921 starting during the 2011 Winter quarter.

NOTE: MATH 09XX courses carry credit for use at 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(s): (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 designed for students who need to review basic algebra skills. It is a fast-paced course that contains all of the content of both MATH 0920 (Beginning Algebra Part 1) and MATH 0921 (Beginning Algebra Part 2) in a single course. Topics include positive and negative real-numbers, solving linear equations and inequalities along with their applications, integer exponents, operations with polynomials, factoring, rational expressions, equations of lines, and graphing of equations and inequalities.

NOTE: Developmental-level math courses are provided to help prepare students for 1000-level math courses. These courses carry credit for use at MCC only; the credit does not transfer nor does it apply toward graduation.

MATH 1220 Business Mathematics **4.5 – 0.0 – 4.5**

Prerequisite(s): (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 directed toward the development and application of the mathematical skills needed to solve problems related to business occupations. Topics include, but are not limited to, percentages, checking accounts and services, payroll, payroll taxes, cash and trade discounts, markdowns, property and sales taxes, simple and compound interest, installment purchases, loan payment plans, and annuities.

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(s): (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 directed toward the development and application of the mathematical skills needed to solve problems related to industrial occupations. Topics include applications of arithmetic skills, measurement, and elementary algebra, geometry, and trigonometry.

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(s): (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
Geometric topics of logic, measurement, plane figure relationships, and figures in space are presented in this course.

MATH 1310 Intermediate Algebra **4.5 – 0.0 – 4.5**
Prerequisite(s): (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
Basic algebra skills are extended in this course to provide the background necessary for further mathematics courses. Topics included are linear, quadratic, polynomial, radical and rational equations; systems of linear equations; rational exponents and polynomial factoring; rational and radical expressions; complex numbers; and graphs of linear and quadratic functions.

MATH 1410 Statistics **4.5 – 0.0 – 4.5**
Prerequisite(s): (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 provides an opportunity for the 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 and percentages, and hypothesis testing.

MATH 1420 College Algebra **5.0 – 0.0 – 5.0**
Prerequisite(s): (1) within one year prior to beginning the course, successful completion of MATH 1310 with a grade of C or better or 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: Grades of C or better in MATH 1420 and MATH 1430 are prerequisites for MATH 2410. The two courses can be taken in either order prior to enrolling in Calculus I; however, it is recommended that students enroll in MATH 1420 prior to enrolling in MATH 1430.

MATH 1430 Trigonometry **4.5 – 0.0 – 4.5**
Prerequisite(s): (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: Grades of C or better in MATH 1420 and MATH 1430 are prerequisites for MATH 2410. The two courses can be taken in either order prior to enrolling in Calculus I; however, it is recommended that students enroll in MATH 1420 prior to enrolling in MATH 1430.

MATH 2410 Calculus I **7.5 – 0.0 – 7.5**
Prerequisite(s): (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
Calculus studies the mathematical tools used to analyze the continuous rate of change between variables. The course reviews some principles of pre-calculus and investigates limits, differentiation, and integration. Applications of both differentiation and integration are studied.

NOTE: Grades of C or better in MATH 1420 and MATH 1430 are prerequisites for MATH 2410. The two courses can be taken in either order prior to enrolling in Calculus I; however, it is recommended that students enroll in MATH 1420 prior to enrolling in MATH 1430.

MATH 2411 Calculus II **7.5 – 0.0 – 7.5**
Prerequisite(s): (1) MATH 2410
Topics include logarithmic, exponential, inverse trigonometric and hyperbolic functions with their derivatives, and related integrals. Techniques of integration, improper integrals, and infinite series are also included. Polar coordinates are discussed and related to calculus.

MATH 2412 Calculus III **6.0 – 0.0 – 6.0**
Prerequisite(s): (1) MATH 2411
Topics include polar, cylindrical, and spherical coordinates. Parametric equations and vectors in the plane and in space, including solid analytic geometry, are covered. Vector-valued functions, functions of several variables, and multiple integrations are also included.

MATH 2510 Differential Equations **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) MATH 2412
This course covers solutions for first- and second-order ordinary differential equations and first-order non-linear differential equations with applications. Power series, Fourier series, and Laplace Transform Methods are also covered.

MATH 2900 Special Topics in Mathematics Variable
Prerequisite(s): (1) instructor approval
Various topics not covered in other Mathematics courses are offered, depending upon interest and relevancy to curriculum. Such topics as applied statistics, discrete mathematics, or number theory may be presented in this format.

Mechanical Design Technology (DRAF)

DRAF 1100 AutoCAD Fundamentals 9.0 – 0.0 – 9.0
This course introduces the students to computer-aided design methods using AutoCAD software. Drawing techniques and terminology using ANSI standards, text creation and editing, dimensioning, AutoCAD menus, file management, plotting, and drawing and display commands are covered. 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(s): (1) DRAF 1100
Dimensioning techniques are presented that apply to manufactured products. Geometric dimensioning and tolerancing are introduced and used in the selection and application of dimensions. The micrometer, caliper, and other precise measuring instruments are employed to measure actual manufactured products. Fits and allowances and current ANSI standards are examined. Lab assignments are completed using CAD software.

DRAF 1300 Inventor Fundamentals 9.0 – 0.0 – 9.0
This course provides students with an understanding of the features and functions of Inventor software. Principles of solids modeling and parametric design are examined. Complex part modeling techniques, drawing view creating and editing, and assembly modeling are covered. Annotations, dimensions, tables, and bills of material are also covered. This is a hands-on, project-based course.

DRAF 1400 Manufacturing Process Design 9.0 – 0.0 – 9.0
Prerequisite(s): (1) DRAF 1100
The design process is examined 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
In this course, students use SolidWorks, a parametric solid modeling and rendering software, to model parts, drawings, and assemblies. Among the features covered are sweep, loft, extrude, and revolve. Also featured is top-down assembly modeling. This is a hands-on, project-based course.

DRAF 2200 Machine Design Principles 9.0 – 0.0 – 9.0
Prerequisite(s): (1) DRAF 1100
Detail and assembly drawings are completed on the CAD system with regard to the numerous design considerations found in machine controls, power transmissions, seals, gears, and mechanical linkages. Design considerations are also looked at as they pertain to mechanisms that change speed and movement of various industrial machines. Students use CAD software to draw, design, and analyze the mechanisms.

DRAF 2300 Pro/ENGINEER Fundamentals 9.0 – 0.0 – 9.0
This course examines the principles of solids modeling and parametric design using Pro/ENGINEER software. Also covered is an understanding of part modeling, assembling modeling, management, and troubleshooting. Views, assembly drawings, dimension and notes, tables, symbols, bills of material, and drawings of complex assemblies are covered. This is a hands-on, project-based course.

DRAF 2400 Tool Design Processes 9.0 – 0.0 – 9.0
Prerequisite(s): (1) DRAF 1100
Included in this course is a comprehensive study of the principles of the design for jigs and fixtures, dies and gages. A study of tool steel and other materials is also examined. Use of standard components, vendor catalogs, handbooks, and the CAD system are also required.

DRAF 2900 Special Topics in Mechanical Design Technology Variable
Prerequisite(s): (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(s): (1) 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, the 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 in this course.

Music (MUSC)

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. Music of non-Western cultures is examined 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
Musical notation and the musical elements of pitch, melody, rhythm, harmony, and form are taught for students unacquainted with the language of music.

MUSC 1120 Music Fundamentals II 4.5 – 0.0 – 4.5
Prerequisite(s): (1) MUSC 1110
This course is a continuation of Music Fundamentals I. MUSC 1120 builds on the musical terminology and basic music concepts of MUSC 1110 and requires students to apply them in transposition, composition, and performance. The course also focuses on ear-training. Listening examples are used to assist students in developing a musically trained ear.

Nursing (NURS)

NURS 1110 Adult Nursing I 3.0 – 9.0 – 6.0
Prerequisite(s): (4) CHEM 1010, ENGL 1010, MATH 1310, and PSYC 1120
This adult medical surgical course introduces students to basic concepts of client care. The concepts of psychosocial and physiologic aspects of aging are presented with an emphasis on caring for the institutional elderly client and caring for the surgical client. Concepts on the musculoskeletal, peripheral vascular system, eye, ear, nose, and throat are introduced. This course includes didactic and a clinical component.

NURS 1120 Adult Nursing II 4.0 – 12.0 – 8.0
Prerequisite(s): (4) NURS 1110, NURS 1510, NURS 1200, and NURS 1300
In Adult Nursing II, cardiovascular disorders, respiratory disorders, cancer, and hematologic and lymphatic disorders are presented. Gastrointestinal diseases are discussed along with disorders of the male and female reproductive system and sexually transmitted diseases. This course includes didactic and a clinical component.

NURS 1130 Adult Nursing III 5.0 – 10.5 – 8.5
Prerequisite(s): (6) NURS 1110, NURS 1120, NURS 1510, NURS 1200, NURS 1300, and NURS 1950
In Adult Nursing III, there is a continuation of study of the nursing care and interventions provided for a client with a specific disease process occurring in the following systems of the body: neurological system, endocrine system, fluids and electrolytes, the renal system, and acid-base balance. Use of the nursing process continues to be an integral part of the course. Content on professional issues including leadership concepts is discussed. The course includes didactic and a clinical component.

NURS 1200 Professional Role of the Nurse I 1.0 – 0.0 – 1.0
Prerequisite(s): (4) CHEM 1010, ENGL 1010, MATH 1310, and PSYC 1120
This course is designed to assist students in identifying the role of the nurse as a member of the health team. The history of nursing, legal and ethical concepts, cultural influences, the nursing process, communication, fundamentals of the teaching and learning process, and the healthcare delivery system are emphasized.

NURS 1300 Mental Health Nursing I 1.0 – 0.0 – 1.0
Prerequisite(s): (4) CHEM 1010, ENGL 1010, MATH 1310, and PSYC 1120
This course is designed to acquaint students with the concept of mental health as well as alterations in mental health. Topics covered include a review of select developmental theories and stages of the life cycle. Stress, specific anxiety disorders, defense mechanisms, specific mental health alterations and current treatments, abuses, eating disorders, spirituality, death, and grief are explored.

NURS 1400 Family Nursing I 2.0 – 3.0 – 3.0
Prerequisite(s): (5) NURS 1110, NURS 1120, NURS 1300, NURS 1510, and NURS 1950
This course focuses on the common health and wellness needs of individuals in the child-bearing and 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. Normal growth and development and select health problems from infancy through adolescence are discussed. This course includes didactic and a clinical component.

NURS 1510 Concepts of Health Assessment and Therapeutic Interventions I 2.5 – 3.0 – 3.5
Prerequisite(s): (4) CHEM 1010, ENGL 1010, MATH 1310, and PSYC 1120
This course is designed to assist 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. Comprehension of underlying principles and mastery of skills are demonstrated in the lab setting.

NURS 1950 Pharmacology 4.0 – 0.0 – 4.0
Prerequisite(s): (4) NURS 1110, NURS 1200, NURS 1300, and NURS 1510
This course is designed to assist 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(s): (4) successful completion of LPN licensure, NURS 2210, NURS 2410, and NURS 2520
Adult Nursing IV is a continuation and advancement of pathophysiological manifestations, treatment modalities, and nursing interventions through utilization of the critical-thinking process and subsequent safe-decision outcomes. A clinical component is included in this course.

NURS 2150 Adult Nursing V 3.0 – 6.0 – 5.0
Prerequisite(s): (3) successful completion of LPN licensure, NURS 2140, and NURS 2310
Adult Nursing V is a continuation and advancement of previous content and includes the following content areas as well as treatment modalities and nursing interventions: perioperative nursing, emergency, trauma, mass casualty, neurological disorders, musculoskeletal and connective tissue diseases, endocrine disorders, infectious disease, immune dysfunctions, end of life, and transplantation. The critical-thinking process is utilized with subsequent safe-decision outcomes. A clinical component is included.

NURS 2210 Professional Role of the Nurse II 1.0 – 0.0 – 1.0
Prerequisite(s): (2) successful completion of the LPN program and LPN licensure
Co-requisite(s): (2) NURS 2410 and NURS 2520
This course is designed to assist students in identifying the role of the registered nurse as a member of the healthcare team. 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 are emphasized.

NURS 2310 Mental Health Nursing II 3.5 – 4.5 – 5.0
Prerequisite(s): (4) satisfactory completion of LPN licensure, NURS 2210, 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 path to wellness is promoted in individuals, families, and groups. The role of the psychiatric nurse as a member of the mental health team is examined. Current issues and trends in mental health and the impact on practice are considered. Pathophysiology, nutrition, and pharmacology are integrated into the course. Clinical experiences are provided in acute or chronic health facilities and community-based experiences.

NURS 2410 Family Nursing II 4.0 – 4.0 – 5.0
Prerequisite(s): (1) satisfactory completion of the first five quarters of the Nursing program
Co-requisite(s): (2) NURS 2210 and NURS 2520
This course expands on content taught in NURS 1400 to focus on complex health and wellness needs of individuals and families throughout the life span.

NURS 2520 Concepts of Health Assessment and Therapeutic Interventions II 0.5.0 – 2.0 – 1.0
Co-requisite(s): (2) NURS 2210 and NURS 2410
This course is designed to assist 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. The therapeutic interventions related to intravenous therapy are presented. Comprehension of underlying principles and mastery of skills are demonstrated in the lab setting.

Philosophy (PHIL)

PHIL 1010 Introduction to Philosophy 4.5 – 0.0 – 4.5
Topics fundamental to living an aware life are the focus of this course. What is the nature of human freedom? What are its limits? What is the good life? What is a just society like? What are the limits of human knowledge? Questions such as these are explored.

PHIL 1030 Professional Ethics 4.5 – 0.0 – 4.5
The title of this course designates a group of courses in professional ethics, each of which focuses on a specific professional field. When offered, the title designates in parentheses the professional field that the course focuses on, such as Professional Ethics (Nursing) or Professional Ethics (e-Commerce). Each course in Professional Ethics emphasizes a review of the main ethical theories, an exploration of the ethical principles germane to the particular field, and an application of professional ethics to the problems in that field.

PHIL 1100 Critical Reasoning 4.5 – 0.0 – 4.5
Students explore the use of logic in everyday settings to analyze ideas, evaluate arguments, draw logical conclusions, and sort relevant from irrelevant statements. Students also study problem-solving techniques.

PHIL 2030 Introduction to Ethics 4.5 – 0.0 – 4.5
This course provides the opportunity to develop skills of moral reasoning through analysis of concepts and problems. Included is the clarification of the connection between philosophical theory, contemporary views, and the student's own moral thinking. Students study the most important ethical theories and examine their application to the practical moral problems people face in their lives.

PHIL 2200 Introduction to Comparative Religion **4.5 – 0.0 – 4.5**
The great religions of humanity are examined, comparing them with regard to their origins, worldviews, beliefs, philosophies of man, and thoughts about our place in the universe.

PHIL 2400 Philosophy and Literature **4.5 – 0.0 – 4.5**
This course examines both traditional and recent literature in relation to the ethical, metaphysical, social, and aesthetic contexts that informed these works of literature. Fiction, poetry, and dramatic works are paired closely to their philosophical partners, such as Charles Dickens's *Hard Times* with Jeremy Bentham and John Stuart Mill; Alice Walker's *The Color Purple* with black women philosophers; or Thomas Mann's *Death in Venice* with Nietzsche and Plato.

PHIL 2600 Contemporary Issues in Philosophy **4.5 – 0.0 – 4.5**
Current issues in feminist philosophies, social and political philosophies, multiculturalism, and post-modernism are discussed and examined in relation to their criticisms of traditional philosophy and in relation to how they envision the world. Emphasis is placed on how to think beyond the current conflict.

PHIL 2900 Special Topics in Philosophy **Variable**
Prerequisite(s): (1) instructor approval
Topics not covered by the other departmental courses may be available in PHIL 2900, including such topics as contemporary issues, the philosophy of art and literature, and the foundations of science and technology.

Photography (PHOT)

PHOT 1005 Basic Photography I – Digital **5.0 – 3.0 – 6.0**
This course serves as an introduction to digital photographic image-making. Emphasis is on camera operation, photographic composition, and technical and conceptual understanding of the photographic medium. All work is evaluated regularly in 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(s): (1) successful completion of PHOT 1005 with a grade of C or better
This course serves as a continuation of the concepts learned in Basic Photography I – Digital and introduces students to traditional photographic processes using black and white film and darkroom practices to produce a portfolio of black and white prints. All work is evaluated regularly in critiques.

PHOT 1015 Photographic Concepts **5.0 – 3.0 – 6.0**
Prerequisite(s): (1) successful completion of PHOT 1010 with a grade of C or better
This course is intended to acquaint students with photographic imagery of the past and present. Photography's interrelationship with society and culture, art and technology, and the principles of visual design is emphasized. (Formerly PHOT 1130)

PHOT 1020 Color Photography **5.0 – 3.0 – 6.0**
Prerequisite(s): (1) successful completion of PHOT 1010 with a grade of C or better
This is an introductory course in color photography covering subtractive color theory, the use of color negative, and color printing procedures. (Formerly PHOT 1310)

PHOT 1025 Digital Photography **5.0 – 3.0 – 6.0**
Prerequisite(s): (1) for PHOT or VACA majors, successful completion of PHOT 1005 with a grade of C or better; (1) for EIMA majors, successful completion of EIMA 1100 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 are introduced to image editing application, film scanning, and digital printing processes. Students produce a portfolio of creative work based on aesthetic and conceptual criteria. (Formerly PHOT 1210)

PHOT 1500 Moving Image Lab **5.0 – 3.0 – 6.0**
This course is an overview of methods used in moving-image production. By investigating the preproduction, 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(s): (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. (Formerly PHOT 1140)

PHOT 1540 Photojournalism **5.0 – 3.0 – 6.0**
Prerequisite(s): (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. Newspaper, magazine editorial, and documentary photography are studied. Students complete individual assignments and express and illustrate the working process of news, magazine, and documentary photography. (Formerly PHOT 2150)

PHOT 1545 Photographic Lighting 5.0 – 3.0 – 6.0
Prerequisite(s): (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 lighting equipment on location and in a studio setting. All work is completed with color photographic materials, the medium format camera, and printing in the color darkroom. (Formerly PHOT 1400)

PHOT 1550 Experimental Photography 5.0 – 3.0 – 6.0
Prerequisite(s): (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 who wish to learn a variety of alternative processes as a means of reaching new visual goals. Emphasis is placed on nontraditional approaches to seeing and utilization of students' innate creativity to generate an expressive image. (Formerly PHOT 2170)

PHOT 2015 Intermediate Photographic Concepts 5.0 – 3.0 – 6.0
Prerequisite(s): (3) successful completion of PHOT 1015, PHOT 1020, and PHOT 1025 with a grade of C or better
Building on knowledge acquired in Photographic Concepts, this course is designed to teach the practical steps necessary to move from the formation of an idea to the professional execution of that idea. Contemporary issues in the realm of fine art and commercial photography are addressed. (Formerly PHOT 2130)

PHOT 2025 Intermediate Digital Photography 5.0 – 3.0 – 6.0
Prerequisite(s): (3) successful completion of PHOT 1015, PHOT 1020, and PHOT 1025 with a grade of C or better
This course is a continuation of Digital Photography. Students refine and extend techniques involving scanning and digital camerawork, control of image quality, and color-managed output options. The emphasis is on greater understanding and more precise control of image input, asset management, and computer-based printing. Students produce a portfolio of creative work based on aesthetic and conceptual criteria. (Formerly PHOT 2210)

PHOT 2525 Advanced Digital Photography 5.0 – 3.0 – 6.0
Prerequisite(s): (2) successful completion of PHOT 1545 and PHOT 2025 with a grade of C or better
In this course, students continue to enhance image-making possibilities in a digital media environment. The course builds on the skills and knowledge developed in preliminary digital photography classes. The emphasis is on developing a professional workflow employing a variety of advanced techniques and resulting in high-level creative control over image output. (Formerly PHOT 2211)

PHOT 2535 Advanced Large Format Photography 5.0 – 3.0 – 6.0
Prerequisite(s): (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, work is evaluated 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(s): (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. Focus is directed toward more complex and complicated situations and subjects. (Formerly PHOT 2140)

PHOT 2550 Advanced Experimental Photography 5.0 – 3.0 – 6.0
Prerequisite(s): (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 introduced in Experimental Photography (PHOT 1550). Use of enlarged negatives and digital negatives continue to be emphasized for use with hand-painted emulsions. These processes are developed further with increased attention on perfecting and repeating processes with the outcome of students sharing their work through a suite of prints. Emphasis is on image content and conceptualization. Unconventional camera and lighting techniques continue to be addressed by adaptation of cameras and equipment close at hand. Specialized film and film processing are utilized. (Formerly PHOT 2270)

PHOT 2560 Portfolio Development and Professional Practice 5.0 – 3.0 – 6.0
Prerequisite(s): (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. (Formerly PHOT 2180)

PHOT 2900 Special Topics in Photography Variable
Prerequisite(s): (1) instructor approval
This course permits instruction in special content areas not included in other Photography courses.

PHOT 2981 Internship **Variable**
Prerequisite(s): (1) instructor approval
Through the internship, 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 in this course.

Physical Education (PHED)

PHED 1000 Physical Education for Health **1.0 – 1.0 – 1.5**
This course provides information regarding muscle type and function. Attention is given to both aerobic and anaerobic physical training techniques consistent with a healthy lifestyle. Students develop and follow a personalized goal-directed exercise program. Motivational techniques and dietary considerations are covered.

PHED 1010 Physical Education for an Active Lifestyle **1.0 – 5.0 – 3.5**
This course provides information regarding muscle type and function. Attention is given to both aerobic and anaerobic physical training techniques consistent with an active lifestyle. Students develop and follow a personalized goal-directed exercise program. Motivational techniques and dietary considerations are covered.

PHED 2900 Special Topics in Physical Education **Variable**
This course permits instruction in special content areas not included in other Physical Education courses.

Physics (PHYS)

PHYS 1010 Applied Physics **2.5 – 6.0 – 4.5**
Prerequisite(s): (3) college-level reading, writing, and math proficiency; MATH 0931 or MATH 0960; and SCIE 0900 or assessment testing
The focus of this course is a general understanding of the basic principles and practical applications of mechanics, heat, electricity, magnetism, and light. This course includes both lecture and lab components.

PHYS 110A Principles of Physics IA **2.0 – 1.5 – 2.5**
Prerequisite(s): (2) college-level reading, writing, and math proficiency; and MATH 1310
Principles of Physics I 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(s): (2) college-level reading, writing, and math proficiency and PHYS 110A
Principles of Physics I 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(s): (2) college-level reading, writing, and math proficiency and PHYS 110B
Principles of Physics I 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(s): (2) college-level reading, writing, and math proficiency and PHYS 110C
Principles of Physics II 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(s): (2) college-level reading, writing, and math proficiency and PHYS 111A
Principles of Physics II 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(s): (2) college-level reading, writing, and math proficiency and PHYS 111B
Principles of Physics II 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 210A General Physics IA 2.0 – 1.5 – 2.5
Prerequisite(s): (2) college-level reading, writing, and math proficiency and MATH 2410
General Physics I is the first course 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(s): (2) college-level reading, writing, and math proficiency and PHYS 210A
General Physics I is the first course 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(s): (2) college-level reading, writing, and math proficiency and PHYS 210B
General Physics I is the first course 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(s): (2) college-level reading, writing, and math proficiency and PHYS 210C
General Physics II 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.

PHYS 211B General Physics IIB 2.0 – 1.5 – 2.5
Prerequisite(s): (2) college-level reading, writing, and math proficiency and PHYS 211A
General Physics II 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(s): (2) college-level reading, writing, and math proficiency and PHYS 211B
General Physics II 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
Various topics not covered in other Physics courses may be offered depending upon interest and relevancy to curriculum.

Plumbing Apprenticeship (PLAP)

PLAP 1110 Plumbing IA 7.0 – 0.0 – 7.0
This course is an introduction to the plumbing trade for plumbing apprentices. The course covers the history of plumbing along with the commonly used materials, tools, and equipment. The apprentice is also introduced to math used in the plumbing trade.

PLAP 1120 Plumbing IB 7.0 – 0.0 – 7.0
Prerequisite(s): (1) PLAP 1110
This course is a continuation of the introductory material covered in Plumbing IA. The apprentice continues working on math for the plumbing trade.

PLAP 1121 Plumbing IC 3.0 – 0.0 – 3.0
Prerequisite(s): (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 1210 Plumbing IIA 7.0 – 0.0 – 7.0
Prerequisite(s): (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(s): (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 2310 Plumbing IIIA **7.0 – 0.0 – 7.0**
Prerequisite(s): (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(s): (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(s): (1) PLAP 2320
This course is designed to help the plumbing 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(s): (1) PLAP 2320
This course continues with the interpretation and application of the Omaha Plumbing Code in the design of plumbing systems. The course covers installation procedures for various plumbing systems including water conditioning and swimming pools. Commercial blueprints are also covered.

PLAP 2420 Plumbing IVB **7.0 – 0.0 – 7.0**
Prerequisite(s): (1) PLAP 2410
This course reviews the Omaha Plumbing Code, job site safety, and math skills required for the plumbing trade. Through review and application of classroom knowledge, the apprentice is prepared to successfully take the journeyman plumbers test.

Political Science (POLS)

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. The party system and an analysis of the U.S. Constitution are included. It is a descriptive, institutional approach with considerable attention to the policy-making process. 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 covered 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 through reading, discussion, and media the social and political issues relevant to the 21st century. The overall theme of the course is globalization and global understanding. Discussion includes 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 – 4.5**
Prerequisite(s): (1) instructor approval
This course permits instruction in special content areas not included in other Political Science courses.

Psychology (PSYC)

PSYC 1000 Psychology for Everyday Living **4.5 – 0.0 – 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. This course is offered 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**
Students learn a broad overview of the field of psychology's fundamental principles and methods. Main topics include physiological psychology, learning, memory, human growth and development, personality, motivation and emotion, social psychology, abnormal behavior, and therapeutic approaches. Reading assessment and college-level reading skills are recommended for success in this course.

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. Emphasis is placed on parent-child relations, developmental milestones, family systems theory, family communication, family composition, and issues related to abuse and neglect. Parenting challenges such as single parenthood, divorce, custody issues, step-family systems, and conflict management are explored. Timely topics are discussed such as same-sex parenting, inter-racial families, families faced with natural disasters, and the war on terrorism.

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. With each stage of the life span, cognitive, language, emotional, social, personality, and physical development are examined. In addition, the procedures used to conduct research about human development are presented. Reading assessment and college-level reading skills are recommended for success in this course.

PSYC 1130 Cognitive Development **4.5 – 0.0 – 4.5**
Prerequisite(s): (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 stages of development are studied, implications for adaptation in the educational classroom setting are learned. 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**
Students are exposed 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(s): (1) PSYC 1010 or SOCI 1010
This course is a survey of the topic of human sexuality. Students are presented with materials concerning the biological, psychological, and socio-cultural facets of sexual behavior. (Cross-listed as SOCI 2150)

PSYC 2350 Fundamentals of Abnormal Psychology **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) PSYC 1010 or PSYC 1120
This course examines historical and contemporary views and issues of abnormal behavior. Methods of explaining, diagnosing, and treating disordered behavior are examined.

PSYC 2450 Social Psychology **4.5 – 0.0 – 4.5**
Prerequisite(s): (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**
The psychological authenticity of selected popular psychology and self-help books are explored in this course. Emphasis is placed on theoretical foundations and therapeutic or pseudo-therapeutic advantages and disadvantages of each book. Reading assessment and college-level reading skills are recommended for success in this course. (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, 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. The course also addresses the major theoretical and philosophical underpinnings of research including validity, 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 – 4.5**
This course permits instruction in special content areas that are not included in other Psychology courses.

Reading and Learning Skills (RDLS)

RDLS 0100 College Reading Strategies **4.5 – 0.0 – 4.5**
Prerequisite(s): (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. Students learn to read college texts more effectively. Students are provided 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 of study include Latin and Greek roots, prefixes and suffixes often found in English words, context clues, academic vocabulary, and higher-level general vocabulary needed for successful college-level reading and writing. Basic writing skills, including grammar and spelling, are expected in order for students 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(s): (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 (ANGEL) modules that contain short readings and quizzes and 2) completing lessons using The Ultimate Speed Reader (USR) software program. Most students who complete this course 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**
The purpose of this course is to facilitate and promote student success in college and life. Students are exposed to learning styles, goal setting, time management, memory techniques, reading strategies, note-taking skills, test-taking skills, critical thinking, and effective communication. Upon completion, students should be able to manage their learning experiences to successfully meet their academic, personal, and professional goals.

NOTE: RDLS 1200 is a wonderful opportunity to assist with the transition to college. This course provides numerous formulas to create success in and out of the classroom.

RDLS 1220 College Success Strategies for the Health Careers **4.5 – 0.0 – 4.5**
This course covers study and reading skills essential for success in college health career classes and life. Study skills taught include self-awareness, goal setting, time management, note-taking, memory techniques, and test-taking. Reading skills focus on critical thinking and textbook reading strategies. Other course topics may include basic computer skills, college resources, and basic health career math.

Real Estate (REES)

REES 1000 Real Estate Principles **4.5 – 0.0 – 4.5**
A general survey of real estate principles and practices is given. 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(s): (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(s): (1) REES 1000 or licensure
Practical skill building for real estate salespersons, brokers, and others is offered. Attention is given 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 **4.0 – 0.0 – 4.5**
Prerequisite(s): (1) REES 1000 or licensure
The primary emphasis of this course is to introduce students to the operational functions of the real estate licensee. The role of the licensee in bringing parties together and creating a market for real property is examined. 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(s): (1) REES 1000 or licensure
This course analyzes and qualifies forces that create, maintain, and destroy real property values. Specifically, the course is oriented to the appraisal process and methods of arriving at a logical estimated value based upon market comparison, income, and cost approaches to value.

REES 2900 Special Topics in Real Estate **Variable**
Prerequisite(s): (1) instructor approval
This course permits instruction in special content areas which are not included in other Real Estate courses.

REES 2981 Internship **Variable**
Prerequisite(s): (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 that appropriate competencies are being developed. Based on state guidelines, students must complete 40 hours of work for each credit hour of this course.

Respiratory Care Technology (RESP)

RESP 1000 Orientation to Respiratory Care **3.0 – 0.0 – 3.0**
Prerequisite(s): (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. Students are acquainted with the medical terminology associated with the field of respiratory care. Other topics discussed in the course include employment opportunities, communication skills, and professional medical ethics.

RESP 1010 Introduction to Respiratory Care **3.5 – 3.0 – 4.5**
Prerequisite(s): (1) acceptance into the Respiratory Care Technology program
This course includes information about the manufacture, transport, and storage of medical gases. Oxygen therapy techniques are introduced. Students are instructed in the application of the following therapy modalities: aerosol and humidity therapy, incentive spriometry, resuscitation devices, and medical asepsis.

RESP 1020 Cardiopulmonary Anatomy and Physiology **4.5 – 0.0 – 4.5**
Prerequisite(s): (3) BIOS 1310 or BIOS 2320, CHEM 1010, and acceptance into the Respiratory Care Technology program
This course is a study of advanced cardiopulmonary anatomy and physiology. Specific emphasis is placed upon airway structures, the mechanics of ventilation, blood gas transport, and acid-base balance.

RESP 1030 Respiratory Care Procedures I **3.5 – 3.0 – 4.5**
Prerequisite(s): (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(s): (2) RESP 1010 and RESP 1020
Emphasis in this course is on obstructive lung diseases. Included are common therapeutic modalities used in their treatment, laboratory values, patient assessment techniques, disease prevention, and disease management. This course includes discussions of current medical literature, physician lectures, and case presentations.

RESP 1040 Respiratory Care Procedures II **3.5 – 3.0 – 4.5**
Prerequisite(s): (2) RESP 1020 and RESP 1030
This course develops skills in ventilatory management. Emphasis is placed on IPPB therapy, assessment of respiratory failure, continuous mechanical ventilation techniques, physiologic aspects of mechanical ventilation, and invasive and non-invasive monitoring techniques.

RESP 1041 Current Concepts II **2.0 – 0.0 – 2.0**
Prerequisite(s): (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, students are 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 are introduced and are referred to throughout the discussion of the above pulmonary disorders.

RESP 1042 Pharmacology for Respiratory Care **3.0 – 0.0 – 3.0**
Prerequisite(s): (2) RESP 1020 and RESP 1030
Emphasis in this course is on respiratory care pharmacology. The course includes general principles and administration, drug dosages and calculations, interactions, and pharmacologic action and effect, as well as contraindications and side effects.

RESP 1991 Clinical Practicum I **0.0 – 16.5 – 5.5**
Prerequisite(s): (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, emphasis is placed upon the basics of oxygen therapy, patient assessment techniques, sustained maximum inspiration, medical aerosol and metered dose inhaler therapy, and medical asepsis.

RESP 1992 Clinical Practicum II **0.0 – 16.5 – 5.5**
Prerequisite(s): (2) RESP 1991 and RESP 1031
Students are assigned 16.5 hours per week to clinical practice in affiliated hospitals and healthcare agencies. Emphasis is placed on chest physiotherapy and postural drainage, airway management, arterial blood gas analysis, bedside monitoring techniques, hyperinflation techniques, aerosol and humidity therapy, and recall of skills from RESP 1991.

RESP 1993 Clinical Practicum III **0.0 – 16.5 – 5.5**
Prerequisite(s): (2) RESP 1992 and RESP 1041
Students are assigned 16.5 hours per week to clinical practice in affiliated hospitals and healthcare agencies. The course includes introducing students to the adult critical care setting with emphasis on ventilator and airway management and recall of skills learned in RESP 1991 and RESP 1992. An observational surgery is included in this quarter of study.

RESP 2100 Advanced Respiratory Care **3.5 – 3.0 – 4.5**
Prerequisite(s): (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. It provides 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(s): (2) RESP 1992 and RESP 1041
This course assists students in integrating critical thinking and reasoning into the pulmonary management of the acutely ill adult client. The course includes physician lectures, discussion of 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(s): (2) RESP 1993 and RESP 2100
This course provides students with instructional experiences in basic interpretation of cardiac rhythms, the interpretation of hemodynamic measurements used in patient assessment, and the components of a pulmonary rehabilitation program.

RESP 2121 Current Concepts IV **2.0 – 0.0 – 2.0**
Prerequisite(s): (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. The course 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(s): (2) RESP 1993 and RESP 2100
This course includes the study of cardiopulmonary physiology from fetal through adolescent life. The course topics include respiratory support, monitoring techniques, and specific disease entities.

RESP 2131 Current Concepts V **2.0 – 0.0 – 2.0**
Prerequisite(s): (3) RESP 2121, RESP 2122, and RESP 2994
This course assists students in the integration of the theoretical knowledge and the actual clinical care of the acutely ill newborn or child. It includes physician lectures, discussion of current medical literature, and case study presentations directed at critical decision making and procedural tactics used in the clinical setting.

RESP 2132 Respiratory Care Seminar **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) RESP 2994
This course introduces students to the concepts of healthcare research and preparation of continuing education programs for healthcare professionals. Opportunities for practical experience in group facilitation and group presentations are provided.

RESP 2994 Clinical Practicum IV **0.0 – 16.5 – 5.5**
Prerequisite(s): (2) RESP 1993 and RESP 2101
Students are assigned to 16.5 hours per week clinical practice in affiliated hospitals and healthcare agencies. This clinical course is designed to extend upon RESP 1993 by providing emphasis in the adult critical care unit. Emphasis is placed on ventilator theory and patient management in both the acute care and sub-acute care facility, airway care, hemodynamic monitoring, performance of 12-lead electrocardiography tracings, chest x-ray interpretation, and diagnostic pulmonary function testing. Recall of skills from RESP 1991, RESP 1992, and RESP 1993 is expected.

RESP 2995 Clinical Practicum V **0.0 – 16.5 – 5.5**
Prerequisite(s): (4) RESP 2120, RESP 2121, RESP 2122, and RESP 2994
Students are assigned 16.5 hours per week to clinical practice in affiliated hospitals and healthcare agencies. This course is the capstone clinical practicum for the program. Offered in this course are experiences in sleep lab studies, pulmonary rehabilitation, pediatric and neonatal respiratory care, and home healthcare. Recall of skills from RESP 1991, RESP 1992, RESP 1993, and RESP 2941 is expected.

SCET

– See Civil Engineering Technology

Science (SCIE)

SCIE 0900 Introduction to the Study of Science **2.0 – 6.0 – 4.0**
Prerequisite(s): (1) MATH 0930
Students who need to learn or review basic scientific concepts important in their studies of biology, chemistry, or physics find this course helpful. Students learn how to study science through concept formation and problem solving. Some of the content areas covered include measurement, energy, diffusion, and the composition of matter.

SCIE 1010 Introduction to Physical Science **5.0 – 3.0 – 6.0**
Prerequisite(s): (3) college-level reading, writing, and math proficiency; SCIE 0900 or assessment testing; and MATH 0931 or MATH 0960
This is a survey course in physical science with emphasis on scientific processes. It emphasizes the chemical and physical principles needed to better understand the world. It may also include topics from astronomy, geology, and meteorology.

SCIE 1030 Energy Systems and Sustainability – Conservation and Design **4.5 – 0.0 – 4.5**
This course is an introduction to energy systems. The course presents the current energy sources and uses (primarily from fossil fuels) as well as alternative energy systems, their uses, and potential. The course 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 and high school science be completed before taking this course.

SCIE 1300 Astronomy **4.5 – 0.0 – 4.5**
Prerequisite(s): (2) college-level reading, writing, and math proficiency and MATH 0931 or MATH 0960
As an introductory course in astronomy, SCIE 1300 covers the tools of astronomy, the night sky, the solar system, stars and star systems, galaxies, and cosmology. This is a lecture only course. The lab course that complements this course is SCIE 1310.

SCIE 1310 Astronomy Laboratory **0.0 – 4.5 – 1.5**
Prerequisite(s): (2) college-level reading, writing, and math proficiency and MATH 0931 or MATH 0960
Co-requisite(s): (1) SCIE 1300
This laboratory course parallels the astronomy lecture course and gives students a hands-on study of planetary and stellar motion, as well as exercises to identify the nature of large bodies in the universe. Students are expected to go on field trips when appropriate. Topics include celestial coordinates, measuring planet size, Kepler's laws, planetary motion, the temperature of stars, galactic speeds and Hubble's law, galactic rotation and the distribution of mass in the galaxy, and the use of a telescope.

NOTE: The co-requisite SCIE 1300 must be taken concurrently or previously completed.

SCIE 1400 Introduction to Meteorology **5.0 – 3.0 – 6.0**
Prerequisite(s): (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. Special topics may include current issues ranging from aviation accidents and global warming to alternate energy sources. This course includes both the lecture and lab components.

SCIE 1900 Special Topics in Science **Variable**
Prerequisite(s): (1) instructor approval
Various topics not typically covered in the Science curriculum may be offered, depending on interest and program need.

Sign Language Studies (SLIS)

SLIS 1000 Introduction to Language **4.5 – 0.0 – 4.5**
Students in this course study basic universal linguistic features and their existence in various languages. Special attention is focused on English/American Sign Language comparatives.

SLIS 1005 Introduction to American Sign Language **4.5 – 0.0 – 4.5**
Co-requisite(s): (1) SLIS 1000
This course provides basic skills training in American Sign Language. Emphasis is on basic vocabulary building and fundamental grammar. The course allows students to apply learned concepts in class.

NOTE: The co-requisite SLIS 1000 must be taken concurrently or previously completed.

SLIS 1010 American Sign Language I **5.0 – 3.0 – 6.0**
Prerequisite(s): (1) assessment testing, ENGL 0960 and RDLS 0100, or college-level reading assessment test score
The purpose of this course is to acquaint students with American Sign Language, develop visual acuity, and build comfort with the use of body and facial expressions to convey information. The course uses a practical approach to teaching vocabulary, grammar, and the cultural aspects through real-life conversational experiences. Students are further acclimated to the new modality of this language via classroom experiences conducted without voice. Additional information about interacting with the Deaf community is introduced via outside community events, additional readings, and lab activities.

SLIS 1020 American Sign Language II **5.0 – 3.0 – 6.0**
Prerequisite(s): (1) SLIS 1010 or departmental approval
This course is a continuation of SLIS 1010. It emphasizes expansion and refinement of the fundamental comprehension and production skills covered in SLIS 1010. Additional functional grammatical structures and targeted lexical items are addressed. Spontaneous, interactive use of American Sign Language is stressed through discussion of Deaf-related events and activities, and students continue the study of information related to everyday life experiences of deaf Americans and deaf people elsewhere in the world. Receptive skills are fostered through interactive ASL lessons.

SLIS 1030 American Sign Language III **5.0 – 3.0 – 6.0**
Prerequisite(s): (2) SLIS 1020 and successful completion of Benchmark I or department approval
This course provides students with additional opportunities to expand their ability to produce and comprehend advanced sign language as used in everyday conversational settings. Students develop competency in ASL vocabulary and cultural features of the language. Students 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(s): (2) SLIS 1030 and SLIS 1150 or departmental approval
This course provides students with additional opportunities to expand their ability to produce and comprehend advanced sign language as used in everyday conversational settings. Students develop competency in ASL vocabulary and cultural features of the language. Activities are based 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. The interrelationship between language and culture as well as a study of socialization, norms, and traditions inherent in the Deaf community are examined. The preservation of American Sign Language and its role in establishing a sense of cultural identity also is addressed.

SLIS 1170 Visual Gestural Communication **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) SLIS 1010
In this course, students study gestures as a form of communication and a basis for visual language, and they develop capabilities in non-verbal communication, mime, and visual gestural communication. Emphasis is on learning to visualize what is to be signed and building expressive and receptive communication skills.

Sociology (SOCI)

SOCI 1010 Introduction to Sociology **4.5 – 0.0 – 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, research findings, sociological theories, society, institutions, groups, social structure, culture, social interaction, socialization, social problems, social inequality, and social change. It is designed to be transferable. 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. An overview of socio-cultural aspects of health is provided. Community and healthcare, medical education, and the hospital as social institutions are included. 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 myths, 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. The course 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 improves 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
Multicultural Issues is the study of diversity in the United States and other societies. It emphasizes value systems, power relationships, forms of societal organization, and cultural contributions of selected racial, ethnic, or cultural minorities. In addition, such emerging minorities as those based on ability, gender, sexual orientation, and age are explored. Special attention is paid 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 are 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. Of special significance are issues such as family relationships, socialization to retirement and old age, perceptions and stereotypes of the aged, bereavement and loss, and other physical and psychological consequences of this stage of development. 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(s): (1) PSYC 1010 or SOCI 1010
This course is a survey of the topic of human sexuality. Students are presented with materials concerning the biological, psychological, and socio-cultural facets of sexual behavior. (Cross-listed as PSYC 2150)

SOCI 2160 Marriage and the Family 4.5 – 0.0 – 4.5
Designed for all students, the purpose of this course is to develop an understanding of the social role of marriage and family living. Topics covered include courtship and preparation for marriage, conflict situations and adjustments between spouses, parent-child relationships, the family in the community, and the disintegration of the family unit. Reading assessment and college-level reading skills are recommended for success in this course.

SOCI 2310 Criminology 4.5 – 0.0 – 4.5
Prerequisite(s): (1) SOCI 1010
This course examines crime and criminology from a broad social perspective. Topics covered include definitions of crime, the various causes of criminal behavior, and systems of criminal justice.

SOCI 2311 Juvenile Justice 4.5 – 0.0 – 4.5
Prerequisite(s): (1) SOCI 1010
This course examines juvenile delinquency from a social and practical perspective. Topics covered include definitions of juvenile delinquency, the various causes of juvenile delinquency, and methods of prevention, treatment, and control.

SOCI 2450 Social Psychology 4.5 – 0.0 – 4.5
Prerequisite(s): (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
The psychological authenticity of selected popular psychology and self-help books are explored in this course. Emphasis is placed on theoretical foundations and therapeutic or pseudo-therapeutic advantages and disadvantages of each book. Reading assessment and college-level reading skills are recommended for success in this course. (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. The course also addresses the major theoretical and philosophical underpinnings of research including the idea of validity in research, reliability of measures, and ethics. The course materials and text use an informal, conversational style to engage both the beginning and the more experienced students of research methods in several areas of study (e.g., psychology, business, nursing, social work, political science, and education).

SOCI 2900 Special Topics in Sociology **Variable**
This course permits instruction in special content areas that are not included in other Sociology courses.

Spanish (SPAN)

SPAN 0100 Introduction to the Study of Spanish **2.0 – 0.0 – 2.0**
This is an introduction to the study of Spanish language that focuses on aspects of Spanish grammar. Basic vocabulary is learned, and study tips for learning a foreign language are featured. This course is designed for those with no previous foreign language study.

SPAN 1050 Spanish for Business Professionals I **4.5 – 0.0 – 4.5**
People working in business are finding that they need to have a grasp of the Spanish language and culture in order to serve the increasing number of Spanish-speaking clients. This course provides students the necessary skills to communicate in Spanish at a beginning level.

NOTE: It is strongly recommended that students who have no prior experience with Spanish take SPAN 1110 before enrolling in SPAN 1050.

SPAN 1051 Spanish for Business Professionals II **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) SPAN 1050
Students continue to develop the skills learned in SPAN 1050 Spanish for Business Professionals I so that they can communicate with Spanish customers at a more advanced level.

SPAN 1060 Spanish for Medical Personnel I **4.5 – 0.0 – 4.5**
People working in the medical profession are finding that they need to have a grasp of the Spanish language and culture in order to serve the increasing number of Spanish-speaking clients. This course provides students with the necessary skills to communicate in Spanish at a beginning level.

NOTE: It is strongly recommended that students who have no prior experience with Spanish take SPAN 1110 before enrolling in SPAN 1060.

SPAN 1061 Spanish for Medical Personnel II **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) SPAN 1060
Students continue to develop the skills learned in SPAN 1060 Spanish for Medical Personnel I so that they can communicate with their 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 in which students begin to learn the fundamentals of Spanish. Comprehension, pronunciation, speaking, listening, reading, writing, and vocabulary are emphasized. The course also includes the study of nouns, adjectives, present and past verb tenses, and Spanish-speaking cultures.

NOTE: Students enrolling in SPAN 1110 are expected to have college-level reading and writing skills.

SPAN 1120 Elementary Spanish II **7.5 – 0.0 – 7.5**
Prerequisite(s): (1) SPAN 1110
Students continue to develop the skills learned in SPAN 1110. The past, future, conditional, and perfect tenses and subjunctive mood are covered, and Spanish-speaking cultures are presented.

NOTE: Students must know present and preterit tenses to be successful in SPAN 1120. Students who have not yet mastered these verb forms should register for SPAN 1110.

SPAN 1410 Spanish for High Beginners I **7.5 – 0.0 – 7.5**
Prerequisite(s): (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 designed for students who are too advanced for SPAN 1110 but who are also not quite prepared for SPAN 1120. Emphasis is placed on grammar, vocabulary acquisition, speaking, listening, and culture. Special focus is on development of reading and writing skills. The course content 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(s): (1) SPAN 1410
This is the second 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 designed for students who are too advanced for SPAN 1110 but who are also not quite prepared for SPAN 2110. Emphasis is on grammar, vocabulary acquisition, speaking, listening, and culture. Special focus is given to development of reading and writing skills. The course content 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(s): (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 are able to use the Spanish acquired in the classroom to communicate in everyday situations in hotels, restaurants, cafés, 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**
Topics not normally addressed in other 1000-level courses in the Spanish curriculum may be offered in SPAN 1900. Examples include Spanish for social service personnel and courses examining specific cultures.

SPAN 2050 Intermediate Business Spanish I **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) SPAN 1051
This course reinforces and builds on the skills learned in Spanish for Business Professionals I and II. It is taught primarily in Spanish and prioritizes oral communication.

SPAN 2051 Intermediate Business Spanish II **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) SPAN 2050
This course reinforces and builds on the skills learned in Intermediate Business Spanish I. It is taught primarily in Spanish and prioritizes oral communication.

SPAN 2060 Intermediate Spanish for Medical Personnel I **4.5 – 0.0 – 4.5**
Prerequisite(s): (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.

SPAN 2061 Intermediate Spanish for Medical Personnel II **4.5 – 0.0 – 4.5**
Prerequisite(s): (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.

SPAN 2110 Intermediate Spanish I **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) SPAN 1120, SPAN 1061, or SPAN 1051
Intermediate Spanish I provides a review of grammar and stresses vocabulary building. Classes, conducted mainly in Spanish, emphasize comprehension and discussion.

NOTE: Students enrolling in SPAN 2110 must have a sound knowledge of all the tenses in the Spanish language and be prepared to begin conversing entirely in Spanish.

SPAN 2120 Intermediate Spanish II **4.5 – 0.0 – 4.5**
Prerequisite(s): (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(s): (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(s): (1) SPAN 2210
This course is a continuation of Conversation Skills I. It develops the skills needed to hold an intermediate 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 at a high intermediate level.

SPAN 2490 Introduction to Latin American Literature **4.5 – 0.0 – 4.5**
Prerequisite(s): (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(s): (2) SPAN 2120 and ability to converse in basic Spanish
Topics not normally addressed by the other 2000-level courses in the Spanish curriculum may be offered in SPAN 2900. Examples include advanced grammar study, intensive conversation and pronunciation, and period literature.

NOTE: Spanish 2900 is conducted entirely in Spanish.

SPAN 2982 Spanish for Medical Personnel Internship **Variable**
Prerequisite(s): (1) SPAN 2061
The internship provides students with 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 in this course.

Speech (SPCH)

SPCH 1110 Public Speaking **4.5 – 0.0 – 4.5**
Prerequisite(s): (1) ENGL 1010
This course provides both theoretical basis and practical instruction for speaking effectively in public. Areas covered include topic selection, audience analysis, speech preparation and organization, support of speeches with credible research, strategic and creative language use, effective listening and delivery skills, and common types of public speeches.

SPCH 1120 Argumentation and Debate **4.5 – 0.0 – 4.5**
Prerequisite(s): (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 are able to understand and apply the art of debate by the end of the course. This course is particularly useful for those 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**
The purpose of this course is to introduce students to 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(s): (1) SPCH 1110
This course permits instruction in content areas not included in current course offerings in Speech. These content areas include, but are not limited to, advanced public speaking preparation and presentation, rhetorical criticism, and media analysis.

Sustainable Energy (SNRG)

SNRG 1110 ENERGY STAR for Commercial Buildings **3.5 – 0.0 – 3.5**
This course is designed to introduce students to the benefits and barriers of commercial building energy efficiency through an in-depth look into EPA's ENERGY STAR program. Topics include, but are not limited to, 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 I **4.0 – 0.0 – 4.0**
This course presents theory, methods, and techniques for installation of weatherization materials. The focus is 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 II **4.0 – 0.0 – 4.0**
Prerequisite(s): (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 1130 Home Energy Auditing **5.0 – 0.0 – 5.0**
In this course, 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. The course provides definitions and concepts for passive and active solar energy systems. Active solar includes solar air, solar water, and solar electric. Applications of solar principles and practices are discussed 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. Principles of passive solar are reviewed as an introduction to the proper location (roof, wall, or ground) that is critical to a successful active solar installation. The training for this course 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 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 1.5 – 0.0 – 1.5
This course provides installation training related to solar electric systems. It includes a site visit to an installation in progress or already completed. Accommodations are made for students to closely observe the system components and participate if job site activities allow. A safety briefing and system overview are presented at the beginning of the class. 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. This course focuses on solar electric module siting and placement. Roof, ground, and pole mounting are reviewed 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. This course 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. This course 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 hrs each)SNRG 1251, SNRG 1252, and SNRG 1253) covering collector siting, installation, and safety.

SNRG 1250 Solar Air Install – Overview 1.5 – 0.0 – 1.5
This course provides installation training related to solar warm air systems. This course includes a site visit to an installation in progress or already completed. Accommodations are made for students to closely observe the system components and participate if job site activities allow. At the beginning of the class, a safety briefing and system overview are presented. 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. This course focuses on solar warm air collector siting and placement. Roof, ground, and side-wall mounting are reviewed 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. This course 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. This course 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 1270 Solar Water Installation – Overview **1.5 – 0.0 – 1.5**
This course provides installation training related to solar hot water systems. It includes a site visit to an installation in progress or already completed. Accommodations are made for students to closely observe the system components and participate if job site activities allow. A safety briefing and system overview are presented at the beginning of the class. 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. The installation training for this course focuses on solar hot water collector siting, placement, and pressure testing. Roof, ground, and side-wall mounting is reviewed 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. The installation training for this course 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. The installation training for this course 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 is designed to familiarize 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.

Theatre (THEA)

THEA 1000 Introduction to the Theatre **4.5 – 0.0 – 4.5**
In this course, 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. All elements and professions of theatre are explored: 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. An overview of theatre history and theatrical genres is included.

THEA 1110 Theatre Technology I **3.0 – 3.0 – 4.0**
This course is an introduction to the basic arts and crafts of technical theatre with an emphasis on safety procedures. Included are overviews of properties, carpentry, scenery, painting, sets, lighting, costuming, and wardrobes. This course is a prerequisite for admission to the Certified Theatre Technology Apprentice Program offered chiefly through the auspices of the Omaha Community Playhouse.

THEA 1120 Theatre Technology II **2.5 – 4.5 – 4.0**
Prerequisite(s): (1) THEA 1110
This course is a continuation of THEA 1110 with a focus on real work situations and experiences. Topics covered include theatrical costuming, stage management, arts administration, front of house, and box office procedures. Students choose a major and minor focus area within technical theatre from carpentry, lighting, rigging, costuming, sound, properties, wardrobe, and special effects.

THEA 1130 Theatre Technology III **2.5 – 4.5 – 4.0**
Prerequisite(s): (1) THEA 1120
This course is a continuation of THEA 1120. Students continue to focus on chosen areas within technical theatre.

THEA 2010 Script Analysis **4.5 – 0.0 – 4.5**
In this course, students learn to do close readings of dramatic texts to explore themes and technical challenges. Analysis from technical, performance, and directorial points of view and the importance of unity in the technical elements of a production are emphasized.

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(s): (1) THEA 2020
This course is a continuation of THEA 2020 with further practice in characterization and scene work. Students are required to 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(s): (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(s): (1) THEA 2030 or instructor approval
This workshop offers further study, practice, and analysis of playwriting. Students also 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
In this course, 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
In this course, students critically examine cultural, political, philosophical, technical, and stylistic developments in theatre history from its origins to 1700 A.D. Course content includes the evolution of acting, directing, technical theatre, theatre spaces, and forms of drama, and students discuss historically significant dramatic works.

THEA 2120 Theatre History II 4.5 – 0.0 – 4.5
Prerequisite(s): (1) THEA 2110 or instructor approval
A continuation of Theatre History I, this course covers the various developments in theatre history from 1700 A.D. to present.

THEA 2150 Stage Rigging 2.0 – 7.5 – 4.5
Prerequisite(s): (1) THEA 1110 or instructor approval
The course builds on concepts and skills introduced in Theatre Technology I with specific emphasis on stage rigging. Rigging topics—including repair and maintenance, motorized rigging, trussing, and special applications—are covered in the lecture portion and reinforced during labs under non-production conditions. 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(s): (1) THEA 1110 or instructor approval
This course builds on concepts and skills introduced in THEA 1110 with specific emphasis on stage lighting. Lighting topics—including wiring and repair of electrical cables, basic color theory, and refraction principles—are covered in the lecture portion and reinforced during labs under non-production conditions. 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 Dramatic Literature I 4.5 – 0.0 – 4.5
Prerequisite(s): (1) ENGL 1020, ENGL 1240, or THEA 2010 with instructor approval
In this course, students examine the elements of drama, notable dramatic works, and the major dramatic genres from antiquity through the 17th century.

THEA 2481 Introduction to Dramatic Literature II 4.5 – 0.0 – 4.5
Prerequisite(s): (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.

THEA 2900 Special Topics in Theatre Variable
Prerequisite(s): (1) instructor approval
Topics not normally addressed in other Theatre courses may be offered in THEA 2900.

THEA 2901 Special Topics in Playwriting **1.5 – 0.0 – 1.0**
Prerequisite(s): (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 in 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. Students 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(s): (1) instructor approval
Students earn credit for practical theatre production experience ranging from, but not limited to, design, construction, performance, and promotion.

THEA 2981 Cooperative Study I **0.0 – 120.0 – 3.0**
The Cooperative Study courses are special cooperative education experiences provided by MCC and the Omaha Community Playhouse. Students work a minimum of 165 hours per quarter in conjunction with the Playhouse and its staff. Students who successfully complete this course sequence receive an apprentice certificate.

THEA 2982 Cooperative Study II **0.0 – 120.0 – 3.0**
The Cooperative Study courses are special cooperative education experiences provided by MCC and the Omaha Community Playhouse. Students work a minimum of 165 hours per quarter in conjunction with the Playhouse and its staff. Students who successfully complete this course sequence receive an apprentice certificate.

THEA 2983 Cooperative Study III **0.0 – 120.0 – 3.0**
The Cooperative Study courses are special cooperative education experiences provided by MCC and the Omaha Community Playhouse. Students work a minimum of 165 hours per quarter in conjunction with the Playhouse and its staff. Students who successfully complete this course sequence receive an apprentice certificate.

THEA 2984 Cooperative Study IV **0.0 – 120.0 – 3.0**
The Cooperative Study courses are special cooperative education experiences provided by MCC and the Omaha Community Playhouse. Students work a minimum of 165 hours per quarter in conjunction with the Playhouse and its staff. Students who successfully complete this course sequence receive an apprentice certificate.

THEA 2985 Cooperative Study V **0.0 – 120.0 – 3.0**
The Cooperative Study courses are special cooperative education experiences provided by MCC and the Omaha Community Playhouse. Students work a minimum of 165 hours per quarter in conjunction with the Playhouse and its staff. Students who successfully complete this course sequence receive an apprentice certificate.

THEA 2986 Cooperative Study VI **0.0 – 120.0 – 3.0**
The Cooperative Study courses are special cooperative education experiences provided by MCC and the Omaha Community Playhouse. Students work a minimum of 165 hours per quarter in conjunction with the Playhouse and its staff. Students who successfully complete this course sequence receive an apprentice certificate.

Utility Line Technician (UTIL)

UTIL 1010 Pole Climbing☯ **4.0 – 1.5 – 4.5**
Co-requisite(s): (1) UTIL 1030
This course is designed to instruct 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 (DC) and alternating currents (AC). This course also covers inductance, capacitance, and single-phase transformers.

UTIL 1030 Ropes, Rigging, and Safety☯ **4.0 – 1.5 – 4.5**
Co-requisite(s): (1) 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(s): (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(s): (1) 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 must be taken concurrently or previously completed.

UTIL 1240 Underground Distribution Systems I☯ **5.0 – 1.5 – 5.5**
Prerequisite(s): (1) UTIL 1110
This course introduces students to URD systems, underground cables, and apparatus. Students are introduced to various termination techniques and construct a model URD system in the lab.

UTIL 2020 Transformer Theory☯ **5.0 – 1.5 – 5.5**
Prerequisite(s): (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(s): (2) UTIL 1020 and UTIL 1110
This course covers the application of transformer banks, metering systems, and watt-hour meters. Their specifications and relationship to delivery systems for supplying various voltages are studied.

UTIL 2040 Power Generator Applications☯ **5.0 – 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(s): (1) UTIL 1110
This course includes stringing and sagging wire, dead ends, anchoring, guying, clipping in, and splicing of overhead conductors. Students are also certified in Red Cross standard first aid and cardiopulmonary resuscitation (CPR).

UTIL 2210 Overhead Distribution Systems I☯ **5.0 – 1.5 – 5.5**
Prerequisite(s): (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(s): (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(s): (8) UTIL 1110, UTIL 1240, UTIL 2020, UTIL 2030, UTIL 2040, UTIL 2110, UTIL 2210, and UTIL 2220
Utilizing proper tools and equipment, techniques for maintenance of overhead and underground distribution systems are studied using designated specifications to gain practical field experiences.

UTIL 2240 Underground Distribution Systems II☯ **4.0 – 1.5 – 4.5**
Prerequisite(s): (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(s): (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(s): (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(s): (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 Commercial Drivers License (CDL) to participate in an internship. Based on state guidelines, students must complete 40 hours of work for each credit hour in this course.

Video/Audio Communication Arts (VACA)

VACA 1010 Audio and Video Production Engineering **4.5 – 0.0 – 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. Background information is presented, 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. Microphone acquisition, basic audio editing, and track mixing and sound for video and/or music are the basis for assignments.

VACA 1110 Introduction to Scriptwriting 4.5 – 0.0 – 4.5
Prerequisite(s): (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. Broadcast or corporate examples are reviewed. Scripts for projects in Moving Image Lab, Video II, and Video III are encouraged.

VACA 1130 Video I 3.5 – 3.0 – 4.5
Prerequisite(s): (1) PHOT 1500 or EIMA 1100
This course is an introduction to the video medium. The basics of operating a video camera, recording quality images and sound, and editing tape are learned and practiced. Both studio and location assignments provide practical learning opportunities.

NOTE: PHOT 1500 is required for Video majors only.

VACA 2020 Audio II 3.5 – 3.0 – 4.5
Prerequisite(s): (1) VACA 1020
This course is a continuation of Audio I. Additional microphone and recording techniques are learned and practiced. Computer desktop editing and track mixing, recording, and editing are introduced and emphasized. Sound for video as well as digital media and the Internet are the basis for assignments.

VACA 2030 Audio III 3.5 – 3.0 – 4.5
Prerequisite(s): (1) VACA 2020
This course is a continuation of Audio II. Advanced recording theory and application for use in the professional sound recording environment are covered. Sound processing and mastering are covered in depth.

VACA 2050 Pro-Tools 3.5 – 3.0 – 4.5
Prerequisite(s): (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(s): (3) VACA 1020, VACA 2020, and VACA 2050
This course is an advance study of procedures to achieve controlled mixes in the digital and analog mixing environments. The course focuses on aspects of digital and analog summing, headroom, gain stages, subgroups, side-chair processing, hardware inserts, delay compensation, clocking, maintaining digital resolution, digital synchronization, A/D D/A conversion, sample rate conversion, dithering, serial order of processing, mid/side processing, and more. Students complete such assignments as signal flow drawings, equipment research, and a final project focusing on subgroup mixing techniques.

VACA 2070 Modern Recording Techniques 3.5 – 3.0 – 4.5
Prerequisite(s): (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, pre-production preparation, and more. A final, individual recording capture project corroborates students' understanding.

VACA 2120 Screenwriting Principles 4.5 – 0.0 – 4.5
Prerequisite(s): (1) VACA 1110
This course is an overview of writing screenplays for motion picture film. Storytelling using the standard three-act screenplay structure is covered. Fundamental principles including script format, structure, plot points, and character development are related to sample scripts, films, and exercises.

VACA 2130 Video II 3.5 – 3.0 – 4.5
Prerequisite(s): (1) PHOT 1500
In this course, camera operation, sound recording, and editing assignments provide an intermediate skill level of learning and practice. Lighting for the studio and location are introduced and applied.

VACA 2131 Video III 3.5 – 3.0 – 4.5
Prerequisite(s): (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. Key production elements are reviewed and critiqued at each stage of the production.

VACA 2220 Digital Media Editing 3.5 – 3.0 – 4.5
Prerequisite(s): (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. Key production elements are reviewed and critiqued at each stage of the production.

VACA 2230 Video Post-Production 3.5 – 3.0 – 4.5
Prerequisite(s): (1) PHOT 1500
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(s): (1) VACA 2131 or instructor approval
In this course, students put the commercial application of the video process into finished form. Students are advised, and work is critiqued. They complete comprehensive portfolios of their work as their final products.

VACA 2900 Special Topics in Video/Audio Variable
Prerequisite(s): (1) instructor approval
This course permits instruction in special content areas not included in other courses of the Video-Audio Communications Arts program.

VACA 2940 MetroVision Practicum 0.0 – 9.0 – 3.0
Prerequisite(s): (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 in this course.

Welding Technology (WELD)

WELD 0900 Introduction to Welding 2.0 – 3.0 – 3.0
Students are introduced to the basic principles and techniques for safe set-up, shut-down, and operation of a number of welding and welding-related processes, including oxyacetylene, 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 for student welders seeking degrees, certificates, or diplomas. Students learn the elements of print reading with special emphasis on interpreting welding symbols. Basic welding information is covered 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 oxyacetylene 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(s): (1) WELD 1150
Students learn the fundamental skills required to create sculptures in steel and copper using gas metal arc welding (GMAW), 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
In this course, the theory and techniques in basic gas metal arc welding are used 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
In this course, students are acquainted with the various welding and cutting techniques applicable to the automotive field.

WELD 1262 Quick Start 2.0 – 3.0 – 3.0
This course is designed to give 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 oxyacetylene cutting, gas metal arc welding, and air carbon arc cutting. Print reading for welders is also explored.

WELD 1300 Oxyacetylene Welding (OAW) 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) – Steel I 2.0 – 3.0 – 3.0
The theory and techniques used in basic gas tungsten arc welding (GTAW) of steel fillet and groove welds in the flat and vertical positions are emphasized. The equipment and its proper adjustment are covered. Also included are the many types of tungsten electrodes and the use of different gases.

NOTE: Students are encouraged to take oxyacetylene welding before attempting this class.

WELD 1410 Gas Tungsten Arc Welding (TIG) – Stainless I **2.0 – 3.0 – 3.0**
Prerequisite(s): (1) WELD 1400
The theory and techniques used in basic gas tungsten arc welding (GTAW) of stainless steel in the flat and vertical positions are emphasized. The equipment and its proper adjustment are covered. Also included are the many types of tungsten electrodes and the use of different gases.

NOTE: Students are encouraged to take oxyacetylene welding before attempting this course.

WELD 1420 Gas Tungsten Arc Welding (TIG) – Aluminum I **2.0 – 3.0 – 3.0**
Prerequisite(s): (1) WELD 1410
The theory and techniques used in basic gas tungsten arc welding of aluminum in the flat and vertical positions are emphasized. The equipment and its proper adjustment are covered. Also included are the many types of tungsten electrodes and the use of different gases.

NOTE: Students are encouraged to take oxyacetylene welding before attempting this course.

WELD 1500 Shielded Metal Arc Welding (Stick) – Flat **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. A variety of methods are used 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) – Vertical **2.0 – 3.0 – 3.0**
Prerequisite(s): (1) WELD 1500
Vertical position weldments are basic to welding technology. In this course, various techniques in the vertical position are studied and used, including the use of E6010 and E7018 electrodes.

WELD 1700 Introductory Fabrication **2.0 – 3.0 – 3.0**
Prerequisite(s): (5) DRAF 1100, WELD 1000, WELD 1400, WELD 1500, and WELD 2200
This is a basic course in the fabrication of projects. The use of layout tools and project drawings or sketches is explored. The emphasis is on actual vs. estimated time and cost considerations

WELD 2200 Gas Metal Arc Welding (MIG) – Steel II **2.0 – 3.0 – 3.0**
Prerequisite(s): (1) WELD 1200
This course is a continuation of Gas Metal Arc Welding (MIG) – Steel I, including fillet and groove welds in the horizontal and overhead positions and the study of pulsed-spray transfer.

WELD 2220 Gas Metal Arc Welding (MIG) – Stainless **2.0 – 3.0 – 3.0**
Prerequisite(s): (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(s): (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(s): (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(s): (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(s): (1) WELD 2200
This course covers automatic submerged arc welding in the flat position, manual submerged arc welding in the horizontal position, and metal-cored welding of flat and horizontal fillet and groove welds using semiautomatic equipment.

WELD 2400 Gas Tungsten Arc Welding (TIG) – Steel II **2.0 – 3.0 – 3.0**
Prerequisite(s): (1) WELD 1400
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(s): (1) WELD 1410
This course is a continuation of Gas Tungsten Arc Welding (TIG) – Stainless I. It covers welding in the horizontal and overhead positions, and it includes the study of pulse-arc welding.

WELD 2420 Gas Tungsten Arc Welding (TIG) – Aluminum II **2.0 – 3.0 – 3.0**
Prerequisite(s): (1) WELD 1420
This course is a continuation of Gas Tungsten Arc Welding (TIG) – 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(s): (1) WELD 1500
The ability to weld in the horizontal position is important in both plate and pipe welding. In this course, 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(s): (1) WELD 1510
Overhead weldments are basic to welding technology. In this course, various techniques in the vertical position are studied and applied including the use of E6010 and E7018 electrodes.

WELD 2520 Shielded Metal Arc Welding (Stick) – Pipe I **2.0 – 3.0 – 3.0**
Prerequisite(s): (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) – Pipe II **2.0 – 3.0 – 3.0**
Prerequisite(s): (1) WELD 2520
Advanced pipe welding techniques are stressed 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. Each pipe position is tested 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(s): (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(s): (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. Gas tungsten arc welding root passes with flux-core arc welding of the fill and cover passes are also included.

WELD 2710 Industrial Fabrication Project **2.0 – 3.0 – 3.0**
Prerequisite(s): (3) WELD 1700, WELD 2400, and WELD 2510
This course consists of constructing projects in which 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(s): (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(s): (1) special course requirements; contact a full-time instructor
In this course, student welders wishing to be certified welders take the Welder Performance Qualification Test.

WELD 2900 Special Topics in Welding **Variable**
Prerequisite(s): (1) instructor approval
This course permits instruction in special content areas not included in other courses in the Welding Technology program.

WELD 2981 Internship **0.0 – 30.0 – 6.0**
Prerequisite(s): (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. To develop internships to meet their academic and career goals, interested students must contact the program faculty. Based on state guidelines, students must complete 40 hours of work for each credit hour in this course.

Workplace Skills (WORK)

WORK 0200 Career and Learning Strategies **Variable**
This course is designed to help 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 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 in the United States and Omaha, Neb. Students learn practical information about education, banking, employment, entertainment, housing, medical issues, the legal system, shopping, social behaviors, social security, and transportation to enhance their participation in community activities and services in the Omaha area.

WORK 1230 Career Planning **1.0 – 0.0 – 1.0**
This course assists students in making a career choice. Topics include values, clarification of interests, skills assessment, and the decision-making process. It also introduces career exploration activities.

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 1300 Essential Technology Skills **Variable**
This course introduces students to essential technology skills and provides a beginning overview of basic microcomputer components and functions, as well as various computer-based technologies such as Internet, email, College online resources, file management, word processing, PowerPoint, and Excel spreadsheet basics.

WORK 1310 Microcomputer Essentials **1.0 – 0.0 – 1.0**
This course is designed as an introduction to the use of a microcomputer system. It defines the basic terminology related to computers and focuses on hands-on activities to help students become acquainted with the use of the keyboard, mouse, and basic computer programs.

NOTE: This is a one-hour class perfect for people with no computer experience. The class focus is very basic and provides a strong foundation to build upon.

WORK 1320 Introduction to Learning Technologies **2.0 – 0.0 – 2.0**
This course is an introduction to the use of various technologies. The course focuses on hands-on activities to help students become acquainted with technology tools that enable them to access and use information. The course also examines some of the current issues regarding technology in the areas of privacy, security, and ethics.

NOTE: This course is great for people with limited computer knowledge before they begin INFO 1001. Various tools for accessing, processing, and managing information are introduced.

WORK 1330 Introduction to Microsoft Word **2.0 – 0.0 – 2.0**
This course is designed as an introduction to Microsoft Word. It introduces basic word processing skills including creating, formatting, and editing documents. Hands-on activities help students become acquainted with the use of toolbars.

WORK 1340 Introduction to Microsoft PowerPoint **2.0 – 0.0 – 2.0**
Prerequisite(s): (1) WORK 1330 or computer proficiency
This course provides students with the essential skills to present information in their classes. The course focuses on hands-on activities. It is designed for students with some computer experience but little to no PowerPoint experience.

WORK 1350 Introduction to Microsoft Excel **2.0 – 0.0 – 2.0**
Prerequisite(s): (1) WORK 1330 or computer proficiency
This course provides students with the essential skills needed to analyze the data for their classes, jobs, business, or personal finances. The course focuses on hands-on activities. It is designed for students with some computer experience but little or no Microsoft Excel experience.

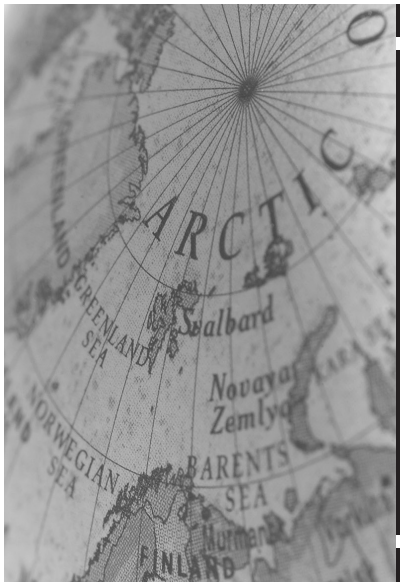
WORK 1400 Employability Skills **Variable**
This course allows students to enhance their interpersonal skills, improve their ability to work in teams, learn to communicate effectively, think creatively, use problem-solving techniques, and explore competitive job-seeking strategies.

WORK 1410 Secrets to Business Success **3.0 – 0.0 – 3.0**
This course is designed to provide an in-depth look at the soft skills and self-management skills needed to provide effective customer service and support in all workplace environments.

WORK 1420 Interpersonal Communication Skills for the Workplace **3.5 – 0.0 – 3.5**
This course is designed to introduce students to the basic concepts of interpersonal communication and to enhance 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(s): (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(s): (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 are reviewed periodically by work supervisors and faculty sponsors to assure appropriate competencies are developed and reinforced.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Educational Terms

Certificate – A Certificate of Achievement is awarded for a program of study that is at least 48 credit hours in length.

Co-requisite – Requirements to enter selected courses have been established. The student must complete these requirements while attending the desired course.

Course description – This is a statement found in the College catalog that identifies the content of a specific course.

Course number – This number identifies a specific course, such as BSAD 1000 (Introduction to Business).

Course objective – Each course offered in the College has defined objectives that all faculty have agreed make up the essentials of the course. These objectives are part of the syllabus distributed at the beginning of each class. Individual instructors may determine how to best assess the extent to which students have mastered these objectives: tests, homework assignments, presentations, research projects, etc.

Course section – This number, an example shown here as 1A, identifies a specific class such as BSAD 1000 1A (Introduction to Business at Elkhorn Valley Campus on Monday, Wednesday and Friday [MWF] from 10 a.m. to 10:50 a.m.).

Course subject – This four letter code identifies the area of study such as Business Management (BSAD).

Credit hour – This is a unit used in giving credit for a course and usually determines the number of hours per week the student is in class.

Degree – The associate degree is offered to a student completing a two-year program of study. MCC offers Associate in Arts, Associate in Science, and Associate in Applied Science degrees.

Diploma – This document indicates successful completion of one of the College's programs of study.

Elective – An elective class permits the student to select a course of his/her choice to apply toward program requirements.

Full-time student – Any student enrolled in 12 or more credits hours is considered a full-time student.

Grade point average (GPA) – This is the cumulative, numerical average of the grades the student has received. The range may be from a low of 0.0 to a high of 4.0.

Internship – This is work related to the student's program of study for which he/she receives college credit. The internship is generally taken near the end of a program of study.

Major – A major indicates a specific group of classes needed to complete a certificate or degree program. It is also referred to as the program of study.

Option – A degree or certificate option is a specialization within a program. A degree or certificate is awarded for the program not the option.

Part-time student – Any student enrolled in fewer than 12 credit hours is considered a part-time student.

Prerequisite – Requirements to enter selected courses have been established. The student must complete these requirements before enrolling in the course.

Program of study – A program of study indicates a specific group of classes needed to complete a certificate or degree program. It is also referred to as the major.

Quarter – This is one of four periods of instruction offered at MCC: Fall (FA), Winter (WI), Spring (SP), and Summer (SS). Each quarter is approximately 11 weeks in length. The student must register and pay for each quarter he/she attends. The academic year begins with Summer quarter.

Transcript – An official record of the grades earned in an institution.

Transfer – The conveyance of a student's credits from one institution to another.

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