2007-2008 Calendar

FALL SEMESTER 2007
Official Registration Days* ........................................ Aug. 16, 20, 21, 22
Faculty Return ........................................................ Aug. 22
Offices closed until 1:00 p.m. for fall staff inservice ........ Aug. 23
Orientation for Freshmen .......................................... Aug. 27
Evening Classes Begin-4:30 ..................................... Aug. 27
Day Classes Begin .................................................. Sept. 3
Holiday, No Classes, Offices Closed ......................... Oct. 19
No Classes, Offices Open ......................................... Nov. 21
Holiday, No Classes, Offices Closed ......................... Nov. 22, 23
Final Exams (Begin 4:30 p.m., Dec. 13 (weather make-up on 20th) Dec. 13 – 19
Last Day of Semester ............................................ Dec. 21
All College Offices Closed ....................................... Dec. 24 – Jan. 1

SPRING SEMESTER 2008
No Classes, Offices Open ........................................ Jan. 2 – 7
Official Registration Days* ...................................... Jan. 2, 3, 4, 7
Faculty Return ........................................................ Jan. 7
First Day of Classes ............................................... Jan. 8
Holiday, No Classes, Offices Closed ......................... Jan. 21
No Classes, Employee Inservice ............................... Mar. 13
Spring Break, Offices Open ..................................... Mar. 14 – 20
Holiday, No Classes, Offices Closed ......................... Mar. 21
No Classes, Offices Open ......................................... Mar. 24
Final Exams ............................................................ May 5 – 8
Last Day of Semester/Commencement ..................... May 9

SUMMER TERM 2008
Vocational/Technical/Career Option
Schedule will vary by program and will be published by the Deans’ Offices May 26
Holiday, No Classes, Offices Closed ............................ July 4

First Arts & Sciences Summer Session
Official Registration Days* ...................................... May 15, 16
First Day of Classes ............................................... May 19
Holiday, No Classes, Offices Closed ............................ May 26
Last Day of First Session ......................................... June 19

Second Arts & Sciences Summer Session
Official Registration Days* ...................................... June 20, 23
First Day of Classes ............................................... June 24
Holiday, No Classes, Offices Closed ............................ July 4
Last Day of Second Session ...................................... July 25
Summer Commencement .......................................... July 25

* For students not preregistered.

This calendar is subject to change.

Catalog 2007-2008

Table of Contents

The College .................................................................. 1
Academic Policies and Procedures .......................... 8
College Transfer and Career Option Programs .... 18
Technical Programs .................................................. 26
Vocational Programs .................................................. 29
Course Numbers ..................................................... 34
Course Descriptions .................................................. 35
Faculty and Staff ....................................................... 84
Index ...................................................................... 91

It is the policy of Iowa Lakes Community College not to discriminate on the basis of race, color, religion, age, gender or national origin, political affiliation, disability or any other characteristic protected by applicable law in its education programs, activities, or employment policies as required by Title VI and Title VII of the 1964 Civil Rights Act, Title IX of the 1972 Educational Amendments, Section 504 of the Federal Rehabilitation Act of 1973 and Title II of the Americans with Disabilities Act (ADA) of 1990.

Inquiries regarding compliance with Title IX, Title VI, Title VII or 504 may be directed to Kathy Muller, Human Resources, Iowa Lakes Community College, 19 South 7th Street, Estherville, Iowa 712-362-0433; to the Director of the Iowa Civil Rights Commission, Des Moines, Iowa; or to the Director of the Region VII Office of Civil Rights, Department of Education, Kansas City, Missouri. A formal discrimination complaint process is published in the Student Handbook, Faculty Handbook, and the Board Policies and Administrative Procedures of the College.

All provisions herein contained are subject to change without notice and do not constitute a contract or offer to contract with any person.
The Mission

Iowa Lakes Community College is a public, comprehensive educational institution accredited by the Commission on Institutions of Higher Education of the North Central Association of Colleges and Schools. The college was established in 1967 under provision of Chapters 260C and 260D, Code of Iowa. “To provide opportunities for quality lifelong learning and promote economic development for [the] communities” of northwest Iowa is the mission of Iowa Lakes Community College. Over 72,000 people reside in this predominately rural five-county district encompassing approximately 2,900 square miles. Through its five campuses and an interactive distance learning system, Iowa Lakes currently enrolls more than 3,900 full- and part-time students. The college offers liberal arts, career option and vocational-technical courses leading toward associate degrees, diplomas and certificates. It is committed to continuous quality improvement while serving the changing needs of its constituents.

Iowa Lakes Community College is noted for its innovative and visionary programming. In 1982, it was the second community college in the state to build an Instructional Television Fixed System (ITFS) providing interactive television access to five college sites and 14 secondary schools. In 1993, Iowa Lakes became the first community college to complete a hook-up with the Iowa Communications Network (ICN), a fiber optic interactive video system linking all community colleges and the regents’ universities in the state. This system now links other colleges, public schools, hospitals and government agencies throughout Iowa as well.

In 1985, Iowa Lakes became the first Iowa community college to mandate entrance assessment of all new students. The goal of this assessment program is to help all students be successful in college by ensuring development of minimum competencies in mathematics, writing and reading prior to graduation from Iowa Lakes.

The college offers a variety of outreach services to area communities including a full schedule of continuing education courses, college preparatory courses, support programming, business/industry training and retraining programs, and facilitation of economic development.

Finally, Iowa Lakes collaborates with three four-year institutions offering baccalaureate degree programs to area citizens who are unable to relocate due to job or family commitments.

Some selected goals are:

OPPORTUNITIES

Extend opportunities for personal and professional growth that are responsive to the dynamic needs of the individual and society.

- Guarantee access to postsecondary education opportunities through an “open door” policy.
- Ensure all constituents have the opportunity and the support necessary to take advantage of the postsecondary education programs and services offered by the college.
- Provide appropriate personnel services.

LIFELONG LEARNING

Provide learner centered activities that empower individuals to reach their potential and fulfill their personal and career goals.

- Enable students to complete the first two years of college work, including general education and pre-professional education and upon completion to achieve successful transfer to four-year colleges and universities.
- Enable students to complete vocational and technical programs designed to prepare them for employment in occupations in a global society.
- Provide opportunities for individuals to continue learning throughout their lifetime.
- Provide programs for high school completion and development of the academic foundation necessary for success in college.
- Enable eligible secondary students to participate in college courses for credit while still in high school.
- Provide vocational and technical training for persons not enrolled in high school and who have not completed high school.

ECONOMIC DEVELOPMENT

Support partnerships among business, community and labor groups that strengthen the economic health and quality of life for area residents.

- Deliver programs for in-service training and retraining for workers to help employers maintain a competitive work force.
- Provide economic development assistance to area businesses, industries, cities and counties in cooperation with federal, state and local agencies.

COMMUNITIES

Promote collaborations with communities that support access to college programs and services with sensitivity to diversity and equal opportunities for all.

- Promote among students an awareness of their responsibilities as citizens in our contemporary and dynamic society.
- Extend the scope of college resources through active partnerships with agencies in the service area.

History

Iowa Lakes Community College was officially organized in 1967 when the first board of directors met to begin planning for the organization and development of the college. Legislation passed by the Iowa legislature established Merged Area III as a part of a statewide plan. This area included all or parts of the counties of Clay, Dickinson, Emmet, Kossuth and Palo Alto and encompassed, at the time, 26 community school districts and two parochial school systems.
The College

In 1968 the board approved the merger of the Estherville Junior College and its facilities into the new district. The college had been operated by the Estherville public schools since its founding in 1924.

The Emmetsburg Community College was merged in 1970 to accomplish the goal of operating two major campuses in the area. The college had been operated since 1930 by the Emmetsburg public schools.

The two largest campuses are located at Emmetsburg and Estherville. Campuses are also located in Algona, Spencer and Spirit Lake.

The Estherville Campus is located in the eastern part of Estherville at 300 South 18th Street. Facilities serve liberal arts, career option, vocational and technical programs.

Vocational, technical, career option, and liberal arts programs and an alternative high school are offered at the Emmetsburg Campus in the northwest part of Emmetsburg at 3200 College Drive.

A facility in Algona was purchased in late 1986 and has been developed into a college campus with facilities for liberal arts courses, community and education services, a success center, and a library. The Algona Campus is located just north of the city at 2111 U.S. Highway 169.

The Spencer Campus, located at 1900 Grand Avenue, Suite B1, includes facilities for liberal arts, technical, vocational courses, a computer lab, community services, education services, a success center, library, the area small business development center and Retired & Senior Volunteer Program.

The Spirit Lake Campus opened in 1984. In late 1995 the campus moved into new facilities located at 800 21st Street. The new building houses evening and weekend college, liberal arts courses, a computer lab, community services, education services, success center, alternative high school and library.

An instructional television system began offering courses to the area in 1983. Beginning with two channels, six sites and four courses, the system now televises 40 to 50 live college courses per semester to college sites. All courses necessary for a two-year Associate in Arts degree are offered on the system.

The college is also a participant in the Iowa Communications Network which allows sharing classes with other colleges in the state via a state-of-the-art fiberoptic system. A classroom at each campus is equipped for two-way television and audio.

In addition, Iowa Lakes Community College is a member of the Iowa Community College Online Consortium providing extended online learning opportunities to our local service area and beyond through the world wide web, www.iowacconline.org.

The continuing education department uses classroom facilities at college-owned sites and in Area III school districts to deliver instruction and services to local residents.

Governance and Administration

The college is governed by a seven-member board of trustees elected by the residents of Merged Area III. Administrative offices are located at 19 South Seventh Street in Estherville, which houses most members of the President's Cabinet, central administrative staff and the college administrative computer center.

In addition to the college president, the President's Cabinet consists of an executive vice president, chief academic officer, executive deans of the Emmetsburg and Estherville campuses, deans of the Algona, Spencer and Spirit Lake campuses, executive director of continuing education/economic development, executive director of planning and development, chief financial officer, executive director of institutional advancement, executive director of plant services and the executive director of marketing.

The President's Cabinet, along with supervisory personnel from the Administrative Team, manages the operation of the college district.

Accreditation

Iowa Lakes Community College is accredited by the Commission on Higher Learning of the North Central Association of Colleges and Schools, 30 North LaSalle St, Suite 2400, Chicago, Illinois, phone 800-621-7440; the Iowa Department of Education and the State Board of Regents. The college is an institutional member of the American Association of Community Colleges. Programs are approved for veteran's education and by the U. S. Justice Department, the Federal Aviation Administration and the Iowa Board of Nursing.

STUDENT SERVICES

Admission

Iowa Lakes Community College maintains an open-door policy of admission for students who have the ability, character and preparation to benefit from the educational programs offered at the college. Application forms may be obtained from high school counselors or from any Iowa Lakes Community College campus. Telephone requests may be directed to 1 866-IA LAKES (866/425-2537). Online applications can be made at www.iowalakes.edu.

Admission Policies-Credit Programs

Iowa Lakes admits students to the arts and science, career option, vocational and technical programs who generally have either a high school diploma or its equivalent as determined by the General Education Development (GED) testing program. Individuals who have not completed one or the other may be admitted on an individual basis to various programs offered by the college. The college also offers programs to assist with high school completion or the GED tests.

Admission to the college does not ensure admission to all programs offered at Iowa Lakes. The college reserves the right to guide the placement of students on the basis of counseling, examinations, pre-enrollment interviews and past academic achievement, as well as available space in programs.

All students applying for admission to credit programs at the college must submit a completed Iowa Lakes application form, a transcript of high school work or GED certification and official transcripts sent directly from each postsecondary institution of higher education attended. Basic skills assessment of English, reading and mathematics is done with every entering student at Iowa Lakes. The tests used are ASSET, COMPASS and the ACT. Those who are underprepared for college level courses may need to take courses to develop these skills further before entering college English or mathematics. Nursing applicants must submit ACT program scores and attend an advising session. Some programs require medical examinations, and other assessments before admission and/or advance fee deposits.

Applicants will be notified of their admission to the college by the dean of enrollment management.
Readmission

Students who have formerly attended Iowa Lakes Community College and who wish to return after an absence of a term (other than the summer session) should apply for readmission at the admission office of the campus they plan to enter. Students readmitted after an absence will be required to fulfill current graduation requirements.

Transfer Students

Transfer students must complete all admission requirements including submission of official transcripts directly from every postsecondary school or college attended whether or not credit was earned.

International Students

A student from another country must complete a special application form which is available from the admission office. Official transcripts of all secondary school and higher education records must be sent directly to the admission office. Notarized translations must be included for non-English language records. Transcripts must include specific dates of school attendance, courses taken during each year of attendance, grades and the grading scale used. The college may use the services of a service bureau to help in evaluating transcripts from other countries; charges are paid by the applicant. Students whose native language is not English must submit evidence of their English proficiency by a score of 500 or above on the Test of English as a Foreign Language (TOEFL) in its paper form. A score of 173 or more is required on the computer version of the TOEFL.

International students must submit evidence of financial ability to meet college and living expenses during the first year of attendance. A financial status questionnaire, available from the admission office, must be completed before an immigration I-20 form will be issued. Visa regulations of the U.S. Department of Immigration and Naturalization must be followed.

Admission-Continuing Education

Admission to continuing education programs is varied and flexible. Adults are encouraged to enroll regardless of past educational achievement or number of years of formal education. Enrollment in adult basic education, high school completion, general adult education, adult vocational supplementary education, adult vocational short courses or professional continuing education is accomplished by contacting the continuing education office at 712/362-7231 or 800/252-5664.

Residency Requirements

Students enrolling at Iowa Lakes Community College are classified as residents or non-residents for admission, tuition and fee purposes. Each student must declare residency correctly under applicable rules and laws of the state of Iowa as well as the policies of the college board of trustees.

The primary determination of residency is the reason a person is in the state of Iowa; the second determination is the length of time the person has resided in Iowa. If a person is in the state primarily for educational purposes, that person will be considered a non-resident.

Students who have been classified as non-residents for this purpose and who believe they should be eligible for resident tuition, may apply for reconsideration of their cases. The registrar may require two or more written documents, affidavits and other evidence considered necessary to establish the residency of the student. This may include voter registration information, driver’s license, motor vehicle registration, an Iowa state income tax return, proof of Iowa homestead credit on property taxes, signed and notarized documentation from an employer verifying employment in Iowa, or a signed and notarized statement from the student describing employment and sources of support. Documentation must verify residence within the state of Iowa for at least 90 days prior to the term for which the student is enrolling.

Residence for college enrollment and fee purposes may be different from residence for other purposes. The burden of establishing exemption from non-resident status is with the student. The complete Uniform Policy on Student Residency is available from the registrar or from the State Board of Education.

An adverse decision by the registrar may be appealed. The Academic Review Committee acts as the appeals body for residency questions. The decision of the committee is final.

Refugees are accepted into this country by the U.S. government and into the state with the recommendation of the governor. They are placed into a community with the full intention of establishing residency and with no intention of returning to their native country. They are charged resident tuition.

An application form and further information is available from the records office at Emmetsburg or Estherville. A change of status is effective for the next term following the change.

ADVANCE REGISTRATION AND ORIENTATION

Advance Registration

Registration for new freshmen takes place at Iowa Lakes during the summer. Iowa Lakes recognizes that the hectic fall registration procedure can be an unsettling, bewildering experience for a new student. The college has established an early registration date when family and friends are encouraged to accompany the student. Processes of advising and registration are accomplished in a convenient manner.

New Student Orientation

At the advance registration and orientation sessions, each student is assigned an academic advisor. Many students come to Iowa Lakes with a particular program of study in mind; these students are assigned advisors in those programs. Other students are undecided about their future. In such cases, students are encouraged to access the Career Resource Centers located in Estherville and Emmetsburg. Career interest assessment, career resource libraries and individual appointments with advisors/counselors may help clarify academic and career goals.

Orientation continues during the first day of the term. Payment of tuition and fees is the final step in registration. The orientation process continues through the term and ends with scheduling, registration and payment of tuition and fees for the next term. All new freshmen who register as full-time day students must register for Orientation to College (if offered).
ACADEMIC SUPPORT PROGRAMS

Once the first term begins, students quickly discover the extent of the commitment to their growth at Iowa Lakes Community College. The faculty is committed to advising and assisting students and a number of support programs serve specific academic needs.

Advisors

Advisors guide students in their programs and in achieving educational goals. Students are encouraged to visit advisors frequently. Regular meetings are scheduled to assist in the academic planning process.

Libraries

The mission of the campus libraries is to support the educational programs of the college. The libraries are comprehensive centers designed to meet the diverse needs of students, faculty, staff and area residents.

Developmental Studies

As an open door institution, Iowa Lakes Community College recognizes that some students may need assistance in basic skills areas. New students are assessed in English, reading and mathematics. Students who have been underprepared or who have been out of school for several years may need to review and sharpen basic skills prior to entering required college courses.

Developmental studies classes are designed to allow students to succeed in the programs they choose. These courses, however, do add an extra load to student requirements and may extend the program of study and/or require attendance at summer sessions. Questions concerning developmental studies should be discussed with advisors, Success Center instructors or deans.

ASPIRES

A federally funded student support service program is available at Iowa Lakes. This program targets first generation, income eligible and disabled students. Services focus on increasing student success in college, including tutoring, college visits for transfer students, counseling and academic advising, plus general support.

Tutoring

Peer tutoring is available to all students on request through the Success Centers.

STUDENT ASSISTANCE SERVICES

College Counseling Services

Through Student Services the college provides support and assistance. Access to professionally trained specialists for academic, career and social counseling is provided in addition to educational guidance. Career guidance and appropriate testing are also available. Concerns may be discussed in confidence as the need arises.

Veterans’ Services

Services to veterans of the U. S. armed services are provided through the financial aid office. Qualified veterans are eligible to receive educational benefits in approved programs in all areas.

Students with Disabilities

Accommodations are provided based on student need. Services such as tutoring, counseling, note taking, readers and special equipment can be provided. All services are based on requests for services and appropriate documentation provided by the student. For more information, contact the accommodations contact person, Linda Helmers, at 712/362-8364 or lhelmers@iowalakes.edu.

Rehabilitation Services

An office of the state Department of Vocational Rehabilitation Service is available on campus in Emmetsburg and Estherville to assist clients of the program.

Student Housing

At Emmetsburg housing is available at the south end of the campus. On the Estherville campus housing facilities are on campus as well. Four-plex housing units are offered in Spencer on college property. Inquiries may be directed to the campus housing office.

Private off-campus apartments, rooms and rental homes are available.

Student Centers

The student centers at Emmetsburg and Estherville are the social, cultural and recreational hubs of the college. A cyber café, meeting rooms, television and game areas are provided. Student areas are available at Algona, Spencer and Spirit Lake.

The student centers offer a wide variety of food services ranging from cafe service and cafeteria meals to catered meals for dinners. Breakfast, noon and evening meals are served Monday through Friday in Emmetsburg, Estherville and Spencer.

Campus Housing and Food Service Refunds

Students living in campus housing units who withdraw from college, who are asked to withdraw from college, or who move out of student housing for any reason still contractually owe rent for the remainder of the term unless they find a replacement approved by the college. The room deposit will be refunded or applied toward unpaid rent if there are no damages and the proper forms are completed.

During regular terms, three meals per day are served by the college food service at Emmetsburg, Estherville and Spencer. Weekend meals are available on request. Meal cards may be purchased by those students without a meal contract who do not wish to carry cash. Cash is always accepted.

Refunds for contract meal programs will be calculated on a per diem basis. Only students who officially drop the meal plan at the business office will be eligible for a refund. Refunds will be prorated from the first and 15th of each month of the regular college year except the month of May. Individuals with questions should contact the food service.

These procedures may be appealed if extenuating circumstances occur; see the student handbook or the housing director for more information. Refund monies may be used to repay financial aid advanced for educational expenses before any money is refunded to the student.
Grants provide a foundation of financial aid to which other aid may be earned to help students work toward a bachelor's or professional degree. For many students, Pell Grants are only awarded to undergraduate students who have not completed a degree. Pell Grants are need-based and are awarded on the basis of the student's Expected Family Contribution (EFC), which is calculated using the Free Application for Federal Student Aid (FAFSA) and is the amount a family can contribute toward the cost of college.

**Pell Grant**

A Federal Pell Grant, unlike a loan, does not have to be repaid. Pell Grants are only awarded to undergraduate students who have not earned a bachelor's or professional degree. For many students, Pell Grants provide a foundation of financial aid to which other aid may be added.

**Accident Insurance**

Iowa Lakes Community College does not purchase or carry health and/or accident insurance on students. Information on purchasing a health and/or accident insurance policy from a private vendor is available in the campus business office. The college encourages community service work related to your course of study. Instructors/coordinators of programs assist graduates in finding full-time jobs on completion of their programs. The financial aid office coordinates information concerning part-time jobs on campus for qualified students while they are attending Iowa Lakes.

**Placement**

The college conducts follow-up studies of graduates in order to ensure that instructional programs and courses are relevant to student needs and that students are adequately prepared for further educational study or entry into the world of work.

**FINANCIAL AID**

The purpose of financial aid is to assist students with the cost of education. All financial aid is awarded through the financial aid office. Students interested in financial aid must complete all admission requirements and complete the Free Application for Federal Student Aid (FAFSA). FAFSA application forms are available from the college financial aid office, high school counselors, and online. Students are encouraged to file before April 1 of each year.

**Pell Grant**

A Federal Pell Grant, unlike a loan, does not have to be repaid. Pell Grants are only awarded to undergraduate students who have not earned a bachelor's or professional degree. For many students, Pell Grants provide a foundation of financial aid to which other aid may be added.

**State of Iowa Scholarships**

Iowa Lakes participates in the State of Iowa scholarship program, available to Iowa residents only. A Student Aid Report (SAR) from the FAFSA is required. Students should also complete an Iowa Lakes scholarship application to apply for other sources of aid.

**Iowa Vocational-Technical Tuition Grant (IVTG)**

Need-based grants are available to Iowa resident full-time vocational, technical and career option students at the area community colleges.

**Other Financial Aid**

Assistance to students needing help in financing education is also provided through veterans' services, vocational rehabilitation, Job Service, Work Force Investment, and the Iowa National Guard.
Scholarships

A number of scholarships are available at Iowa Lakes Community College. An application and information concerning eligibility are available from the Institutional Advancement Office or the Financial Aid Office. Financial need may be a qualification for some scholarships. Other scholarships are available to students through local civic and community organizations.

Satisfactory Progress Procedure

Once a student establishes eligibility to participate in the federal, state and Iowa Lakes financial aid programs and is awarded funds from these programs, the student agrees to make satisfactory progress toward the completion of the designated program of study. The college is directed by federal and state governments to establish an institutional policy which will monitor academic progress. Information on this policy is available on the Iowa Lakes Community College website.

Presidential Scholar Honors Program

Freshman applicants to Iowa Lakes recognized as honor students in high school and second year college students who have a cumulative average of 3.50 or above are invited to be members of the Presidential Scholars Program. Membership guarantees financial assistance through scholarships ranging from $100 awards to full tuition reimbursement. Members of the program gather periodically during the year to plan and take part in cultural, intellectual and aesthetic activities; and are also advised to register for honors courses which will be identified as such on their transcripts. Students completing six honors courses over the two years will also be recognized as Presidential Scholars at commencement exercises. Some restrictions apply in this program.

STUDENT LIFE

The Iowa Lakes Community College experience is not by any means restricted to the classroom. Students participate in many co-curricular activities that are very much a part of their learning and growth. Since many of these activities, such as athletics and music, have headquarters at the Estherville campus, transportation is provided from other campuses when needed.

Athletics

The athletics program at Iowa Lakes Community College is an integral part of the total educational program. The program promotes physical growth and fitness, provides organized intercollegiate sports competition for student participation and community involvement, and allows a competitive feeling of achievement through sports participation. Intercollegiate athletics operate through the Estherville campus for students at any campus. Intramural athletics provide organized competition, individual tournaments and outdoor recreation for all students. Opportunities for fun, enjoyment and fellowship through participation in sports activities are sponsored at both Emmetsburg and Estherville.

Communication

Students majoring in mass communications — writing, editing, photography, layout — are responsible for the “Spindrift,” the college newspaper. All students are invited to participate. An annual publication, “Prairie Smoke,” features student poetry, short stories, essays, art and photography. All students are invited to submit work to “Prairie Smoke.”

Students interested in speech and debate find opportunities for competition with other colleges. Broadcasting students air a variety of broadcast programs and a radio music show over a local cable television channel.

Music

Iowa Lakes has numerous vocal and instrumental ensembles as well as recitals and coffeehouses to provide students with extensive solo or group performance opportunities. The music organizations in which students may participate are concert band, concert choir, jazz band, jazz singers, handbell choir, men’s choir, women’s choir, woodwind ensemble, brass ensemble, and percussion ensemble. Opportunities for private lessons on piano, guitar, voice and many other instruments are available. Lessons are taught by highly qualified faculty. Lessons are open to all students and community members contingent upon the availability of faculty. The college also sponsors invitational jazz band contests, swing choir/jazz choir festivals and jazz band clinics which feature nationally known clinicians.

Student Organizations

The college encourages students to be active in college clubs and organizations. More than 30 student organizations reflect the wide range of student interest in pre-professional, social and special interest groups. A variety of clubs and organizations are available for student participation.

Student Government

The Student Senate is the governing body for students at the college. Through its work, students are provided an opportunity to participate in the operation of the college. The senate’s objectives are to provide comprehensive activity programs for the student body, to address issues brought before it by the students represented, to encourage interaction between students at the various campuses, to provide leadership in issues of citizenship and student rights, and to administer the student activity fee (with the consent of the board of trustees of the college).

STUDENT RIGHTS AND RESPONSIBILITIES

Academic institutions exist for the transmission of knowledge, the pursuit of truth, the development of students and the general well-being of society. Free inquiry and free expression are indispensable to the attainment of these goals.

Freedom to teach and freedom to learn are inseparable facets of academic freedom. The freedom to learn depends upon appropriate opportunities and conditions in the classroom, on the campus and in the larger community. Students should expect to exercise their freedom with responsibility. Those rights and responsibilities are published in the Student Handbook along with due process procedures for disciplinary actions.

Drug Prevention Program

Iowa Lakes complies with the Drug Free Schools and Communities Act of 1989 (PL 101 226) and provides a drug free institution that prohibits employees and students from unlawfully manufacturing, distributing, dispensing, possessing or using a controlled substance on its property or during any of its activities. Details on standards of conduct, legal sanctions, health risks and referral agencies are published in the Student Handbook or are available from campus business offices.
Crime Prevention on Campus and Completion/Graduation Rates:

The Student Right to Know and Campus Security Act of 1990 (PL 101-542), require colleges to collect, publish and distribute certain information concerning policies and procedures, including statistics relating to campus security and criminal actions on campus. This information is provided to all current students and employees in the Student Handbook and to applicants for admission or employment on request.

Additionally, the law (as amended by PL 102-26) requires colleges to report their completion/graduation rates on an annual basis, as well as specific information concerning athletes. This information is also published in the Student Handbook.

Institutional Record of Student Complaints

To comply with federal regulations, the college maintains records of the written and signed formal complaints filed with the offices of the Executive Vice President, the Executive Deans or the Campus Deans. These records will be maintained in the office of the Executive Vice President.

Americans with Disabilities Act—Policy of Nondiscrimination

It is the policy of Iowa Lakes Community College not to discriminate on the basis of gender, race, national origin, creed, age, marital status, disability or any other characteristics protected by applicable law in its education programs, activities, or employment policies, as required by Title VI and VII of the 1964 Civil Rights Act, Title IX of the 1972 Educational Amendments, Section 504 of the Federal Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990.

Inquiries regarding compliance with Title IX, Title VI, Title VII, or Section 504 may be directed to Kathy Muller, Affirmative Action Officer, Iowa Lakes Community College, 19 S. Seventh Street, Estherville, IA 51334, telephone (712)362-0433; to the Director of the Civil Rights Commission, Des Moines, IA; or to the Director of the Region VII Office of Civil Rights, Department of Education, Kansas City, MO. A formal discrimination complaint process is published in the Student Handbook, Faculty Handbook, and the Board Policies and Administrative Procedures of the College.
The General Education Core

General education is intended to provide breadth of learning to the community college experience. General education imparts common knowledge, promotes intellectual inquiry and stimulates the examination of different perspectives, thus enabling people to function effectively in a complex and changing world.

General education is not exclusively related to a student's technical, vocational or professional field but is a part of a degree or diploma that prepares all students to meet personal, social and lifelong learning needs.

At Iowa Lakes Community College, general education encompasses curricular patterns and/or cognitive experiences appropriate to the length and content of the prescribed program. The general education requirements include college-level experiences which develop student capabilities in, and understanding of, (a) oral and written communication; (b) critical thinking; (c) numerical data; (d) scientific inquiry; (e) ethical, global, historical and social issues; and (f) appreciation for the fine arts.

The general education component at Iowa Lakes is developed at the institutional level through the faculty governance structure, using criteria appropriate to the institution's mission, state guidelines and requirements of applicable accrediting bodies. Iowa Lakes Community College will continually clarify, articulate, publicize and assess its general education program. The general education requirement varies in accordance with the specific degree or diploma program in which the student enrolls.
### Associate in Science Transfer Degree

**Requirements**

The Associate in Science Transfer degree is designed to provide the first two years of a typical college or university bachelor’s degree program in mathematics, science, technical or pre-professional studies. Completion of the degree will satisfy all of the general requirements at several area colleges and universities and many of the requirements at other schools. To earn the Associate in Science transfer degree, a student must:

- Earn a minimum of 64 semester credits, of which not more than 16 may be vocational or technical credits used as general electives and which may not be developmental education credits.
- Earn a cumulative grade point average of 2.00 or higher.
- Complete the following general requirements, totaling 40 or more semester credits:
  
  **Communications** (10 semester credits)
  - ENG-105 Composition I .......................... 3
  - ENG-106 Composition II ......................... 3
  - SDV-103 Successful Learning .................. 1
  - SPC-101 Fundamentals of Oral Communication 3
  
  **Science/Mathematics** (Take a minimum of 20 total credits of Mathematics & Science. Must take one math and one science course.) (Select from AA degree science courses) 20
  - (Select from AA degree social sciences) 3
  - (Select from AA degree humanities courses) 3
  
  **Computers** (proof of literacy such as a high school course or any other computer course) .................. 0.3

### Associate in Science General Education Degree

**Requirements for Career Programs**

An Associate in Science degree with a designated specialty is awarded to a student who successfully completes a career option program. In addition to the course requirements in the specialty area, the following general requirements must be fulfilled:

- Earn a minimum of 68 semester credits, of which not more than 16 credits may be vocational or technical credits used as general electives and which may not be developmental studies credits.
- Earn a cumulative grade point average of 2.00 or higher.
- Complete the requirements of the career option specialty.
- Complete the following 25 semester credits of general education requirements:

  **Communications** (6 semester credits)
  - ENG-105 Composition I .......................... 3
  - SPC-101 Speech Fundamentals .................. 3
  
  **Science** (4 credits)
  - (Select from AA degree science courses) 4
  
  **Mathematics** (3 credits)
  - (Select from AA degree math courses) 3

---

### Humanities (9 semester credits from two or more areas)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>I HIS-110/111 Western Civilization *</td>
<td>3</td>
</tr>
<tr>
<td>I HIS-285 Classical Heritage *</td>
<td>3</td>
</tr>
<tr>
<td>II HIS-151/152 U.S. History</td>
<td>3</td>
</tr>
<tr>
<td>III PSY-111 Intro to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>IV PSY-121 Developmental Psych.</td>
<td>3</td>
</tr>
<tr>
<td>IV PSY-211 Psychology of Adjustment</td>
<td>3</td>
</tr>
<tr>
<td>IV PSY-241 Abnormal Psychology</td>
<td>3</td>
</tr>
<tr>
<td>IV PSY-251 Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>V Ecn-120 Principles of Macroeconomics.</td>
<td>3</td>
</tr>
<tr>
<td>V Ecn-130 Principles of Microeconomics.</td>
<td>3</td>
</tr>
<tr>
<td>V SOC-110 Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>V SOC-115 Social Problems</td>
<td>3</td>
</tr>
<tr>
<td>VI Pol-111 American National Government.</td>
<td>3</td>
</tr>
<tr>
<td>VI Pol-112 American State &amp; Local Government</td>
<td>3</td>
</tr>
<tr>
<td>VII Ant-105 Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>VII Geo-121 World Regional Geography</td>
<td>3</td>
</tr>
<tr>
<td>VII His-201 Iowa History</td>
<td>3</td>
</tr>
<tr>
<td>VII Mms-101 Mass Media *</td>
<td>3</td>
</tr>
<tr>
<td>VII Pol-110 Introduction to Political Science.</td>
<td>3</td>
</tr>
<tr>
<td>VII Soc-120 Marriage and Family</td>
<td>3</td>
</tr>
<tr>
<td>VII Soc-186 Contemporary Global Issues *</td>
<td>3</td>
</tr>
<tr>
<td>VII Soc-200 Minority Group Relations</td>
<td>3</td>
</tr>
</tbody>
</table>

### Social Science (9 semester credits from two or more areas)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>I DRA-101 Introduction to Theatre</td>
<td>3</td>
</tr>
<tr>
<td>I Edu-235 Children’s Literature</td>
<td>3</td>
</tr>
<tr>
<td>I Lit-101 Introduction to Literature</td>
<td>3</td>
</tr>
<tr>
<td>I Lit-110/111 American Literature</td>
<td>3</td>
</tr>
<tr>
<td>I Lit-124 American Poetry</td>
<td>3</td>
</tr>
<tr>
<td>I Lit-150/151 World Literature, I/II</td>
<td>3</td>
</tr>
<tr>
<td>I Lit-161 The Short Story</td>
<td>3</td>
</tr>
<tr>
<td>II Mus-100 Music Appreciation</td>
<td>3</td>
</tr>
<tr>
<td>II Mus-205 Jazz History &amp; Appreciation.</td>
<td>3</td>
</tr>
<tr>
<td>III Art-101 Art Appreciation</td>
<td>3</td>
</tr>
<tr>
<td>III Art-206 Art History</td>
<td>3</td>
</tr>
<tr>
<td>IV His-285 Classical Heritage *</td>
<td>3</td>
</tr>
<tr>
<td>IV Phi-101 Introduction to Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>IV Phi-105 Introduction to Ethics</td>
<td>3</td>
</tr>
<tr>
<td>V FL -XXX (any Foreign Language)</td>
<td>3</td>
</tr>
<tr>
<td>VI His-110/111 Western Civilization. *</td>
<td>3</td>
</tr>
<tr>
<td>VI Mms-101 Mass Media *</td>
<td>3</td>
</tr>
<tr>
<td>VI Soc-186 Contemporary Global Issues *</td>
<td>3</td>
</tr>
</tbody>
</table>

*Use credits for Social Science or Humanities requirements, not for both.

### Computers (proof of literacy such as a high school course or any other computer course) 0.3

### PLUS ELECTIVES TO TOTAL 64 SEMESTER CREDITS: May include up to 16 vocational/technical credits; do not include developmental courses or special needs courses.

The Collegiate Assessment of Academic Proficiency (CAAP) will be used to assess the writing and mathematics skills of all students enrolled in the Associate in Arts curriculum. The assessment will be administered when the earned and currently enrolled credit of the student totals 60 or more semester credits. The student will not be charged the cost of assessment.
Social Science (6 credits from two areas):
(Select from AA degree social sciences) ..........................3-3

Humanities (3 credits):
(Select from AA degree humanities courses) .........................3

Business (3 semester credits from business
department or a computer course) ..................................3

**Associate in Applied Science Degree Requirements**

The Associate in Applied Science degree is awarded to students who complete two-year technology curricula. Each program has specific course requirements; all programs require a 2.00 or better GPA for graduation. Some arts and science courses may apply to AAS degree requirements in specific programs. Credits earned toward an Associate in Applied Science degree may be transferable to some baccalaureate degree granting institutions, but only at the option of those institutions.

Minimum program requirements total at least 70 semester credits and general requirements include a writing course and an oral communications course or a course combining both; a mathematics course and a related or applied science course; a social science course such as applied psychology or sociology or human relations; a related business or computer applications course.

**Diploma Requirements**

Diplomas are issued to students who complete full-time vocational curricula of at least one academic year but less than two years in length. Specific course requirements must be met and a 2.00 or better GPA is required.

Minimum requirements total at least 34 semester credits and general requirements include a minimum of one writing course and an oral communications course or a course combining both; an applied mathematics or applied science course; and a human relations course.

**Certificate Requirements**

Students enrolled in adult vocational or adult general education courses receive certificates signifying satisfactory completion of the program of instruction. Students must attend at least 70 percent of the class sessions and complete the course work according to the instructor’s standards.

**Adult High School Diploma Requirements**

Diplomas are issued to those students who complete 36 or more high school semester units including the required basic distribution and elective courses.

The basic distribution of courses required is as follows:
- 8 semester units of communications (may include speech)
- 4 semester units of mathematics
- 4 semester units of science
- 1 semester unit of government
- 2 semester units of American history
- 3 additional semester units of social studies

Additional elective courses are taken to meet the minimum of 36 semester units. Alternative high schools may have additional local requirements.

Adult high school diplomas are issued to graduates who are at least 18 years of age and whose high school class has graduated. Younger students may be admitted only under exceptional circumstances.

Credit may have been previously earned toward requirements and electives by attendance at any accredited high school, approved trade or business school, or college. At least one unit must be completed at Iowa Lakes.

**Iowa High School Equivalency Certificate Requirements**

The Iowa Department of Education will issue a high school equivalency certificate to a student who earns a standard score of 410 or above on each of the five tests in the GED (General Educational Development) test battery and an average standard score of 450 or above. The student must not be currently enrolled in high school, must be at least 18 years of age and the high school class must have graduated.

Further information, including exceptions, is available from the chief examiner for GED tests at Iowa Lakes, available through the Success Centers. Information on alternative high school programs is available by contacting the executive vice president.

**ACADEMIC INFORMATION**

**The Academic Year**

The academic year for college transfer and career option consists of two semesters, beginning in August or September and in January, plus a summer session. The academic year for vocational and technical students normally consists of two semesters plus a summer term.

Continuing education programs are organized and scheduled to meet the needs and convenience of those requesting the programs.

**Unit of Credit**

The unit of college credit is the semester hour. A semester hour of credit is normally given for a minimum of approximately one hour per week of lecture per semester, two hours per week of laboratory work per semester, or the equivalent.

A high school semester unit of credit is awarded based on the student’s ability related to achievement. It normally requires about 60 hours of study. (A semester unit equals approximately half a Carnegie unit.) A Continuing Education Unit (CEU), offered in some continuing education courses, is based on “the contact hours of participation in an organized continuing education experience under responsible sponsorship, capable direction and qualified instruction.” Ten contact hours equal one CEU.

**Classification of Credit Students**

Students are classified in one of several ways:
- **Freshman**: a student who has completed fewer than 30 semester credits.
- **Sophomore**: a student who has completed 30 or more semester credits.
**Full-time:** a student carrying 12 or more credits of college work in a regular term.

**Part-time:** a student carrying 11 or fewer credits of college work in a regular term.

**Grading System**

Grades are based on students' levels of achievement in those courses in which they enroll. The following scale is used at Iowa Lakes:

Grades for courses with attempted credits which count toward the grade point average:

- **A** 4 honor points
- **B** 3
- **C** 2
- **D** 1
- **F** 0

Grades for courses with no attempted credits which do not count toward the grade point average:

- **P** pass: course has been elected to be taken on a pass/no credit basis during the first two weeks of a term. Only one course may be so elected each term, except that all courses designated as developmental may be elected as pass/no credit. In addition, some courses are offered only on a pass/no credit basis. No more than one-fourth of the total credits required for graduation may be earned with P grades. A course which is being repeated may not be elected on a pass/no credit basis. Does not count as attempted credit.
- **Q** not passing: a failing grade which earns no credit; can be issued only when a course is taken on a pass/no credit basis. Does not count as attempted credit.
- **T** credit granted for testing. Does not count as attempted credit.
- **L** credit granted by virtue of prior education or occupational experience. Does not count as attempted credit.
- **X** only the last grade (ABCDF) will count for GPA and credit. The previous grade is replaced with an “X” to indicate it is a repeat and no longer counts for GPA and credit.

**Grades may be accessed online via WebAdvisor at www.iowalakes.edu or will be sent each term via a student request.**

**Grade descriptions:**

- **A** excellent
- **B** above average
- **C** average
- **D** below average.
- **F** fail: counts as attempted credit, no honor points.
- **I** incomplete: assigned in cases where the student has not completed some portion of assigned course work during a regular term for extenuating circumstances such as illness family emergency, etc. A change of grade will be accepted up to the end of the next term following the term in which the grade is issued.
- **W** withdrawn: course formally dropped after the end of the first week of a term.
- **K** administratively withdrawn: same as W but for administrative reasons rather than student initiative.
- **N** audit: course taken for personal interest only; does not earn credits or grade. Must be elected during the first two weeks of a term.

**PROCEDURES FOR ACADEMIC CLASSES**

**Registration**

Registration consists of program planning, scheduling of classes through consultation with an advisor, and paying tuition and fees to the college. New students who are enrolling for the first time in the fall are invited to attend an orientation-registration program in the summer. Preregistration is scheduled prior to the beginning of each term. Regular registration dates and the last date to register are published each term. A current permanent mailing address must be on file as part of registration and must be kept up to date. Information sent to the address on file will be considered to be proper notification to the student. Registration for courses may also be completed online. A student must first meet with an advisor to receive advisor clearance before using online registration.

Students may enroll after the first week of classes and before the end of the second week in a term with the permission of the appropriate dean and the director of records and registration.

**Change of registration**

A “change of registration” form must be completed and submitted to the business office to make any change in registration. Courses may be added during the first two weeks of a session; after the first week, the instructor and director of records and registration must approve. Courses may be dropped at any time prior to the last four weeks of a course in a regular length term; after the first week of the term, a ‘W’ grade is recorded for any course a student drops. Dates are pro-rated for shorter terms.

**Withdrawing from all classes**

A student may withdraw from all classes (drop out of college) at any time during the term. A “Withdrawal from College” form and an exit interview are normally completed. A refund of tuition may be made for withdrawals early in the term, according to a schedule published elsewhere in this catalog. After the first week of classes, a ‘W’ grade will be assigned for each course.
Refund of tuition

Refund of Tuition (When there are no Federal Financial Aid)

Resources: In the event a student withdraws from a course, the student will receive a refund based on the dates of the courses enrolled. Refunds are calculated on the total tuition paid; fees are not refunded, except for complete withdrawals during the first week. Refunds for courses shorter than a standard term in length, or for courses on non-standard calendars, may be prorated. If a student received Federal Financial Aid, please read the next section. (Please refer to the class schedule book for specific dates.)

Complete withdrawal during first week classes: 100% tuition refund
Partial withdrawal during first week of classes: 100% tuition refund
Withdrawal second week (complete drops only): 60% tuition refund
Withdrawal third week (complete drops only): 40% tuition refund
Withdrawal after the third week: 0% tuition refund

College by Cassette/Telecourse, eCollege/online courses, Ed2Go/Gatlin Education and other special course schedules differ; beginning dates and refund dates vary. Fast Track course drops are cancelled with refund only before second class meeting starts. No partial refunds are granted on Fast Tracks. A student who registers but later is unable to attend must notify the college before the last date to cancel the course(s) or program to avoid charges and/or grades. Some exceptions may apply.

Refunds are calculated on total tuition paid; fees are not refunded. Refunds on courses shorter than a standard term in length or on non-standard calendars may be prorated. Refund monies may be used to repay financial aid advanced for educational expenses before any refund is issued to the student. Refund procedures, percentages and amounts may differ for first-time college students receiving federal financial aid.

Refund of Tuition (Federal Financial Aid/Title IV Funds): Refunds of tuition and fees will be calculated based on the refund policy. The student's account balance may be affected by the financial aid adjustment that occurs after the Return to Title IV calculation. “Return to Title IV Funds” (Federal Financial Aid) formula dictates the amount of Federal Financial Aid that must be returned to the government by the student. This formula is applicable to any student receiving any type of federal aid other than Federal Work Study if that student withdraws before the 60% completion point of the semester. If funds are released to a student or their account, the student may be required to repay some of the federal grants and loans. Generally the law states (section 485 of the Higher Education Amendments of 1998—P.L./105-244) that the amount of assistance the student has received is determined on a pro-rated basis, in relationship to the specific term and the amount of the term completed. Students can calculate their liability by logging on to www.r2t4.com and selecting the “continue” button. Students need to contact the Financial Aid Office for an exit interview and to verify the accuracy of their calculation. (See “Withdrawing from College” for related information.)

Credit assignment in emergency situations

Upon request of the student and after the two-thirds point of a term, the student may be given grades and credit for all courses in progress at the time of a personal emergency such as serious personal or family illness or injury requiring the student to discontinue studies, a death in the immediate family, or other circumstances that preclude a student finishing the term. The instructor of each course and a dean must approve the grade and credit.

Options in credit and grading

A change from credit to audit or audit to credit status may be made during the first two weeks of a term if the permission of the director of records and registration is granted. A change from traditional to pass/no credit (P/Q) grading may also be made during the first two weeks of a term if the instructor and director of records and registration approve. Some restrictions apply; see the section on “grading system.” A shorter option period applies for shorter terms.

New Start

Iowa Lakes Community College offers a “New Start” program for students a) who change programs of study after receiving unsatisfactory grades in a previous program at Iowa Lakes Community College; or b) who re-enroll at the college in the same program after an absence of at least two years.

It allows the student to begin a new cumulative grade point average from the beginning of the re-enrollment or from the beginning of the new program. A change to a new program of study is defined as a change in declared major program, such as changing from arts and sciences to a vocational program, or changing from one vocational program to another vocational program.

A “New Start” means that all academic work completed prior to the designated “New Start” term will appear on the academic record but will not be considered for use in the cumulative grade point average.

The “New Start” is a one time only option. If a student experiences difficulty in the new program, the student may not apply for a second “New Start.” No grades are removed from the transcript by this program. Passing grades of ‘C’ or better earned prior to the “New Start” for courses which apply to the new program may be used in meeting graduation requirements but will not be calculated in the student’s cumulative grade point average.

Since this program applies to Iowa Lakes Community College only, it will generally not affect decisions made by transfer institutions or grantees of financial aid. Such agencies will likely consider the student’s complete academic record, not just the “New Start”. A “New Start” petition must be filed in the Records Office before or during the first term of enrollment in the new program, or after the return to a former program following the required absence. The petition for a “New Start” will be reviewed by the Records Office and will be implemented if the student has met all the guidelines. The student may appeal the denial of a “New Start” petition to the Academic Review Committee as provided by the academic appeal procedures listed in the student handbook. Once granted, the “New Start” may not be rescinded.

Class attendance, assignments and examinations

Students are expected to attend all class meetings for the courses in which they have enrolled. Any absence results in the loss of instruction and interferes with the learning process.

Absence shall not lessen the student’s responsibility for meeting the requirements of any course and does not exclude a student from the responsibility for completion of work missed. The specific absence and make-up policies of each instructor are contained in course encour-aged to be aware of the amount of class time missed when considering participation in college activities. Each instructor determines whether or not a final examination will be given in a particular course. If an exam is scheduled, students must be present as scheduled. In cases of
illness or emergency during examination times, a student may be excused and the test rescheduled by the instructor. Where such illness or emergency extends beyond the end orientation information and/or the course syllabus. Students are of the term, the procedure for incomplete work should be followed.

**Tuition and fees**

A schedule of tuition and fees is adopted by the board of trustees. Current costs are available from the business offices at all campuses. Tuition and fees are due at the beginning of each term.

If a student is unable to pay tuition and fee charges in full, a deferred payment plan is available for an extra charge. Copies of the tuition and fee payment procedure are available from campus business offices or in the student handbook. VISA, MasterCard and Discover are currently accepted for payment of tuition, fees, books and other charges.

All funds owed the college must be paid prior to graduation.

**Minnesota reciprocity**

A reciprocity agreement exists between Minnesota and Iowa Lakes Community College. Under this agreement persons who qualify as residents of Minnesota for the purpose of higher education may be eligible to attend Iowa Lakes and receive a waiver of non-resident tuition. Conversely, persons who qualify as residents of the Iowa Lakes Community College district, Merged Area III, may be eligible to attend Minnesota West Community College campuses at Worthington, Jackson and Pipestone and receive waiver of non-resident tuition.

**TRANSFER OF CREDIT AND OTHER MEANS OF OBTAINING CREDIT**

Iowa Lakes will accept credit from other institutions of higher education and will grant credit for other forms.

Traditional forms of instruction may transfer if they qualify under the policies and procedures for granting such credit at the receiving institution.

**Inter-institutional transfer of credit**

Iowa Lakes will accept credit transferred from other regionally accredited institutions of higher education provided that an official transcript is received directly from the institution, the grades are satisfactory, and that the courses apply toward the student’s field of study. A grade of ‘C’ or better, or its equivalent, is considered to be satisfactory.

Credit from non-regionally accredited institutions may be transferable to Iowa Lakes based on accreditation by a specialized or professional accrediting organization; comparability of the nature, content and level of the credit offered, as determined by Iowa Lakes administration and faculty; and the appropriateness and applicability of the credit earned to the student’s current program of study.

**Credit for military service**

Credit may be granted for military experience in the following instances:

- two credits in physical education for a year or more of active duty.
- credit for DANTES or USAFI courses with acceptable scores or grades.
- service school courses
- military specialties (MOS, NER, etc.)

A recommendation of the American Council on Education is one of the methods used in determining possible credit for military experience. Applicability to the student’s program of study is also considered.

**Credit for extra-institutional and experiential learning**

Iowa Lakes may grant credit for formally structured courses offered by non-collegiate sponsors such as businesses, corporations, governmental agencies, unions and professional groups. College credit recommendations published by the National Program on Non-collegiate Sponsored Instruction (through the Regents of the State University of New York) and The National Guide to Educational Credit for Training Programs (through the American Council on Education) are used as guidelines for the awarding of credit.

Credit may be granted to an Iowa Lakes student for learning gained through work experience or personal study, if the student can document that this learning meets the competencies of the course for which credit is requested. Credit may be awarded only for a course listed in the current college catalog.

- The student, upon recommendation of the instructor and advisor, presents a written proposal to an instructor responsible for teaching the course in question, requesting credit for that course. Supporting materials must accompany that request, including a complete description of the prior learning, supervisory verification if available and a description of the competencies achieved.
- If the instructor evaluates the proposal as having merit, the instructor will present the proposal to an Executive Dean or the dean’s designee for permission for the student to contract for the course credit.
- The student and instructor will develop a performance contract to document competency in the course objectives, define a time line for completion and the student will pay the appropriate charges.
- Instructor verification that the student is to receive credit for the course is submitted to the director of records and registration and a grade of ‘L’ is recorded on the academic record.

**Credit by examination**

Credit may be earned by examination at Iowa Lakes through the following methods:

- the ACT PEP examinations
- selected DANTES examinations
- “challenge” examinations for specific Iowa Lakes courses which are developed and graded by the appropriate academic department.

Certain requirements must be met and Iowa Lakes specifies acceptable scores for each examination. For further information, contact the testing personnel at one of the Iowa Lakes Success Centers.

- the College Level Examination Program (CLEP) for general and certain subject examinations.

**Other information**

A minimum of 12 semester credits must be earned in residence before military experience credit or credit by examination will be posted on the permanent record. A maximum of 30 semester credits may be accepted for military experience, experiential learning, and credit by examination. Some forms of earning credit may incur Iowa Lakes fees and charges for test administration, evaluation, and/or posting. Some standardized tests require payment of examination fees as well.
GRADUATION

Commencement ceremonies are held at the end of the spring and summer terms. A student who plans to graduate at the end of a term must apply by completing a special form at the records and registration office no later than the published deadline date which appears in the class schedule. Late applicants may be listed for graduation in a later term.

Academic honors

The deans’ honors list is published each term which includes names of those full-time students (12 or more graded credits) who have earned a grade point average of 3.25 to 3.99. Students with a 4.00 grade point average are placed on the college president’s honors list. The lists are released to area news media.

Candidates for graduation who have earned a cumulative grade point average of 3.25 or higher are honored at the commencement ceremony by identifying their honors in the printed program. Three classes of recognition are indicated:

- Cum laude 3.25 - 3.49
- Magna cum laude 3.50 - 3.74
- Summa cum laude 3.75 - 4.00

Graduation honors are also posted on the academic record based on the final cumulative GPA.

ACADEMIC STANDARDS

Academic probation

Iowa Lakes Community College provides assistance to help students succeed academically. The purpose of academic probation at Iowa Lakes is to indicate the need for special or individualized help for the student who has academic difficulty. The college is concerned when a student has problems, and faculty and staff are available to provide assistance. Academic probation is somewhat different from financial aid probation, which is covered under Services for Students in the Student Handbook.

Student status

A status of probation means that the student and advisor must meet to determine what course of action will lead to success during the next enrollment. Strict probation means that the student may continue enrollment only with a written contract for performance; failure to meet the terms of the contract results in immediate suspension from classes. Participation in a Success Group (or an alternative assignment approved by the Success Group facilitator) is usually required of students on strict probation except during the summer term. Suspension means that a student is prohibited from attending classes and is dropped from all courses. A suspension is for a semester; a second suspension is for a year. A semester is counted if the student is enrolled for six or more credits.

After the first semester in college, a new freshman will be placed on probation if the GPA is less than 1.50. The student will be placed on strict probation if the GPA is less than 0.80. After more than one semester in college, a student will be placed on probation if the cumulative GPA is less than 2.00. A student with more than one semester in college will be placed on strict probation if the cumulative GPA remains less than 2.00 or if the term GPA is less than 1.00 and the cumulative GPA drops below 2.00.

A student on strict probation will be suspended if the term GPA is less than 2.00. A student on probation or strict probation may continue enrollment if the term GPA is 2.00 or better even if the cumulative GPA does not reach 2.00.

A student who earns a cumulative GPA of 2.00 or better will be returned to academic good standing. The Academic Review Committee will review records of students on continued probation and may revise their status based on further information such as absences, excessive number of ‘I’, ‘Q’ or ‘W’ grades, etc. Transfer students will be placed on probation if a similar record at Iowa Lakes would result in a probationary status.

Credit loads

Fall/Spring Terms

A liberal arts student may register for up to 19 credits if the previous term’s gpa was 3.50 or better; up to 21 credits if the last term’s gpa was 3.50 or better. A student is limited to 18 credits or less if the previous term’s gpa was between 1.50 and 1.99 and limited to 12-14 credits or less if the previous term’s gpa was less than 1.50. A liberal arts student on strict probation will be restricted to 12-14 credits. Students in vocational or technical programs may take the amount of credit required for the program each term.

Summer Term

A student may register for up to 12 credits. For both first and second session courses a student may register for up to 6 credits.

A student may appeal the credit load restriction by preparing a written petition stating the reasons for the proposed exception, securing the signed consent of the faculty advisor and presenting the petition to the director of records and registration at least three days before the last day to add a course in a term.

THE APPEAL PROCESS

Academic, Financial Aid and Residency Appeals

Informal: It is the desire of the college that any difficulties or confusion a student may encounter with the policies or regulations of the college be handled in an informal manner whenever possible. Students are encouraged to talk to their advisors, instructors, or the campus dean to resolve issues as they arise.

Questions about financial aid may be asked of the director of financial aid.

Questions about academic requirements, policy or procedures may be asked of the registrar, who also handles changes of residency.

Formal: If a student feels that extenuating circumstances might justify the waiver of a particular college policy, application, procedure or regulation as interpreted by a college employee, an appeal may be made to the Academic Review Committee. The Academic Review Committee considers all initial appeals to waive the application of college policies and procedures concerning academic actions, financial aid or residency decisions. (Academic actions include, but are not limited to, academic probation or suspension, procedures, program or degree requirements, or grades allegedly given in error by faculty members.)
Academic Policies & Procedures

Appeal Procedure

A. A student initiates an appeal by making a written statement to the Academic Review Committee, delivered to the registrar. The statement should provide a description of the problem as well as the desired solution, along with any supporting information the student believes will be helpful. The student may request written involvement by faculty members, advisors, or others in support of the case.

B. If the student is dissatisfied with the committee's decision, a further appeal may then be made in person before the committee. The student may have others appear in support of the petition. If a personal appeal is not requested within thirty (30) days of the previous committee decision, that decision becomes final.

C. If a student has completed both the written and personal appeal processes above, the decision of the committee may be appealed to the campus dean. If the campus dean's decision is consistent with the Academic Review Committee's decision, the student may then appeal to the chief academic officer. If the student continues to be dissatisfied, he or she may appeal to the college president or designee, whose decision will be final. Failure to initiate this level of appeal within thirty (30) days of the notification of the committee's action shall result in the committee's last decision becoming final.

PRIVACY OF RECORDS

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. They are:

1. The right to inspect and review the student's education records within 45 days of the day the college receives a request for access. A student should submit to the director of records and registration/registrar or other appropriate official a written request that identifies the record(s) the student wishes to inspect. The registrar will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the registrar, the registrar shall advise the student of the correct official to whom the request should be addressed.

2. The right to request the amendment of the student's education records that the student believes are inaccurate or misleading. A student may ask the college to amend a record that the student believes is inaccurate or misleading. The student should write to the college official responsible for the record, clearly identify the part of the record the student wants changed, and specify why it is inaccurate or misleading. (Note: FERPA was not intended to provide a process to be used to question substantive judgments which are correctly recorded. The rights of challenge are not intended to allow a student to contest, for example, a grade in a course because the student felt a higher grade should have been assigned.) If the college decides not to amend the record as requested by the student, the college will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. The right to consent to disclosures of personally identifiable information contained in the student education records, except to the extent that FERPA authorizes disclosure without consent. One exception which permits disclosure without consent is disclosure to college officials with legitimate educational interests. A college official is a person employed by the college in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff, if any); a person or company with whom the college has contracted (such as an attorney, auditor, or collection agent); a person serving on the college board of trustees, or a student serving on an official committee, such as a discipline or grievance committee, or assisting another college official in performing his or her tasks. A college official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility. Upon request, the college discloses education records without consent to another school in which the student seeks or intends to enroll.

4. The right to file a complaint with the U.S. Department of Education concerning alleged failures of Iowa Lakes Community College to comply with the requirements of FERPA. The name and address of the office that administers FERPA is: Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Avenue, SW, Washington, DC 2000.

Directory information

Iowa Lakes considers the following to be directory information and will release it unless the student requests the college not do so by the end of the second week of classes each term: name, addresses, telephone numbers, e-mail address, date and place of birth, major field of study, classification, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, academic honors awarded, and the most recent previous educational agency or institution attended.

Any request to limit directory information must be made to the director of records and registration. The college will not notify a student of requests for directory information if the student has requested withholding it; Iowa Lakes will not be responsible if disclosure would have been to the student's benefit. Students not currently enrolled may not restrict directory information. Directory information is released only on an individual basis; lists of students are not available. A request to withhold any item of directory information will normally result in the college withholding all information.

Students' right to review

Students have the right to inspect and review information contained in their education records. A student must make a written request to the director of records and registration listing the item or items of interest. The college will respond to the request within 45 days. Further information about the content of the educational record and the right to challenge portions which the student feels are incorrect is available in the records and registration offices at Emmetsburg or Estherville.

Requests for transcripts

A transcript of credit courses taken at Iowa Lakes Community College is issued to a third party only upon written request by the student. Forms for this purpose are available at all campuses as well as the college web site: www.iowalakes.edu. A signed letter is also acceptable and may be sent by mail or facsimile (FAX). Transcripts are normally sent out within a few days of the request; at the end of a term it takes longer to post grades and degrees on records. All transcripts are processed at the Emmetsburg campus. Iowa Lakes Records, 3200 College Drive, Emmetsburg, IA 50536, 712-852-5211 or FAX 712-852-2154.

There is no charge for transcripts sent by regular mail service. Same day, FAX, and similar special services incur charges. Contact the records office for the special service fees. Transcripts are not released if the student has an overdue financial obligation to the college.

15
TRANSFER TO OTHER INSTITUTIONS

Students who plan to transfer to another institution after the completion of their study at Iowa Lakes should plan early to meet the requirements of the institution to which they plan to transfer. Iowa Lakes advisors and counselors will help students meet their educational goals. Students are also urged to work closely with the school to which they will transfer to be sure that courses will transfer and that requirements will be met. An official transcript of Iowa Lakes work should be sent to the transfer institution when the school asks for it.

Students who plan to complete the AA degree and transfer to a four-year college should be aware that many schools have increased the level of mathematics competency required for graduation to the level of college algebra or higher. This requirement also applies to community college graduates with the AA degree, even though the AA degree may meet the four-year college general requirements. In addition, some schools are now requiring a foreign language and some require that science courses include laboratory work. Students who take college-level work as high school students and who use the credit toward high school graduation requirements should be aware that some colleges will not also allow that credit to count toward a college degree.

CONTINUING EDUCATION

Iowa Lakes Community College is aware that education is a lifelong activity and provides preparatory, upgrading and enriching continuing education courses for those residents who want, need and can benefit from such training. A comprehensive schedule which provides area residents with the opportunity to participate in programs and activities meet their needs. Working directly with communities and area businesses, the division provides short courses, programs, and seminars in a timely manner.

Adult Basic Education

This program provides adults with a ‘second chance’ to learn and/or brush up on basic skills such as reading, writing, computation, and balancing a checking account. Classes are offered at various locations throughout the areas served by the college.

Vocational Supplemental Courses

Courses in this category are designed to increase the skills and understandings needed by adult workers who are already employed but want to upgrade or update their occupational competencies. The target population for these courses is the working adult.

Needs are identified by several methods. Individuals or groups may request a specific course which they need. Agencies, organizations, businesses and industries may make requests. Advisory committees also propose courses and programs, such as those for nursing or building maintenance supervisors. Licensing boards also assist in identifying needs.

VOCA TIONAL SHORT TERM PREPARATORY PROGRAMS

Certified Nurse Assistant (75 hours): This course prepares students to work in a long-term care facility and includes basic nursing skills, information on the aging process, necessary attitudes and understandings of the duties of such a job. Fulfills the requirements for certification as a Nurse Aide I. This course is available for college credit as H0102A.

Nurse Aide Level II: This 60-hour program assists in developing skills and attitudes necessary to be an effective nurse aide/orderly in a hospital environment. Classroom and clinical experience are combined. People who have completed the geriatric aide course may apply those hours toward this course. This course is available for college credit as H0103A.

Geriatric Nurse Aide: This 75-hour program provides students the basic skills, attitudes and understanding necessary to perform effectively in a nursing home setting.

EMT-B Emergency Medical Technician Basic: The total course consists of classroom and in-hospital observation and training, examinations and a recommendation of completing five emergency ambulance runs. The course develops student skills in the recognition of symptoms of illnesses, injuries and proper procedures for emergency care. This follows the national Department of Transportation curriculum. It may be taken for academic college credit as H0105A.

EMT-I Emergency Medical Technician Intermediate: This is the first classification for advanced emergency medical technician certification. At this level, the student gains a more in-depth knowledge of certain body systems and assessments. Two skills are added, intravenous therapy and advanced airway devices. EMT-Basic certification is required for enrollment. College credit is available as H0211A and H0213A.

Homemaker Home Health Aide: This 80-hour program provides orientation and training for responsible, mature persons who will be employed in homes where illness, disability, or other crises threaten normal family living. Aides may do or assist with such things as personal care, bathing, shampoos, simple exercises, encouraging disabled or aged persons to help themselves, planning and/or preparing meals, shopping, doing light housework, and running errands.

Activity Directors Orientation Program: This 42-hour program assists in developing the skills needed to be able to reach every segment of the nursing home population and to conduct a comprehensive activity program.

COMMUNITY SERVICE AND SERVICE LEARNING

A community service program is designed to promote agricultural, business, industrial, recreational, cultural and social development. This includes providing leadership in solving community problems, serving new constituents, and making college facilities available.

Service learning at Iowa Lakes is a method of teaching and learning which engages students in solving problems and addressing local needs within the college or the community as part of their comprehensive educational program. Service learning combines academic curriculum with service in a college or community service project.

Iowa Lakes Community College is also involved in community service projects such as the Retired and Senior Volunteer Program (RSVP), the Small Business Development Center and health related programs.
ENGLISH AS A SECOND LANGUAGE

Designed to teach English to those people for whom it is not the primary language, this program has assisted migrant and refugee peoples who have moved into the area. Emphasis is on English for daily living and on-the-job language requirements.

EXTENDED LEARNING

Public Television Courses

Each semester the college offers a variety of video-based courses from Public Television. The courses are available on video cassettes or through Iowa Public Television broadcasts. Students register for the courses at Iowa Lakes, watch the video programs at home and complete assigned work. Iowa Lakes provides a qualified instructor to facilitate completion of the course by the student, communicating by mail, in local conferences, by telephone, and by e-mail. Students typically are required to meet at a campus facility at least twice during the term, although some courses may require additional meetings. Testing is available at Iowa Lakes Success Centers.

University of Iowa RN-BSN Satellite Program

The University of Iowa College of Nursing offers an opportunity for registered nurses to complete the Bachelor of Science in Nursing (BSN) degree at Emmetsburg or Spencer. To apply for admission to the UI College of Nursing, a student must be licensed as a registered nurse and must have completed all prerequisites to the nursing major with a minimum GPA of 2.50.

Classes are offered by UI at Iowa Lakes through a variety of methods including videotape presentations, teleconference, guided correspondence study, and regular classroom and clinical instruction. A nursing faculty member from UI is on site at Iowa Lakes and is responsible for facilitating courses and providing guidance and advisement to enrolled and prospective students. Interested students may request a no-charge evaluation of their previous school transcripts and receive a curriculum pattern and suggested plan of study based on their individual needs. Students who are currently in an Associate Degree Nursing program are encouraged to seek advisement early if they are interested in applying for this program. The UI Faculty Facilitator can be contacted through Iowa Lakes in Emmetsburg.

Postsecondary Enrollment Options Act

Iowa Lakes Community College welcomes and encourages qualified high school students to enroll in college-level classes and looks forward to serving their needs. To facilitate the Postsecondary Enrollment Options Act, Iowa Lakes has established the following guidelines (which may be in addition to the requirements imposed by the act itself).

Students must complete and submit the following before the term in which they plan to enroll:

a. college application for admission
b. submit an official high school transcript
c. ASSET or COMPASS scores
d. “Notice of student registration” form
e. college registration form

Students enrolling for the second and subsequent terms at Iowa Lakes need only complete the “Notice of student registration” form and college registration form.

ASSET or COMPASS must be passed at an acceptable level or students will not be allowed to take college classes. Students receiving low scores are encouraged to return to their local high school to upgrade their skills. If no means are available at the high school level to upgrade basic skills the student may enroll in Iowa Lakes developmental classes, but not regular college classes, until the required developmental courses have been completed satisfactorily.

Students who are currently in an Associate Degree Nursing program are encouraged to seek advisement early if they are interested in applying for this program. The UI Faculty Facilitator can be contacted through Iowa Lakes in Emmetsburg.

Third Age College

The Third Age College is an educational organization that provides an academic setting to enrich the lives of individuals over the age of 55 and interested others. The term “third age” is borrowed from the French and indicates productivity during retirement rather than this “age” becoming the mere closure of life.

Classes meet in Algona, Emmetsburg, Estherville, Spencer and Spirit Lake and focus on academics rather than leisure and pleasure. A variety of topics and subject areas are covered in courses.
A student completing an Associate in Arts or Associate in Science Transfer degree will complete 39-44 credits of required subjects and 20-25 credits of electives. These requirements meet some or all of the general education requirements at many four-year colleges. Courses can be selected in major areas to meet pre-professional requirements in the following fields:

- Pre-Accounting
- Pre-Agriculture
- Pre-Animal Science
- Pre-Architecture
- Pre-Art
- Pre-Astronomy
- Pre-Athletic Training
- Pre-Biology
- Pre-Business
- Pre-Chemistry
- Pre-Chiropractic
- Pre-Computer Science
- Pre-Communication Studies
- Pre-Counseling
- Pre-Criminal Justice
- Pre-Dentistry
- Pre-Education
- Pre-Engineering
- Pre-English/Speech
- Pre-Family/Community Service
- Pre-Fish and Wild Life/Forestry
- Pre-Geology
- Pre-History
- Pre-Home Economics
- Pre-Library Science
- Pre-Mathematics
- Pre-Medicine
- Pre-Medical Technology
- Pre-Mortuary Science
- Pre-Meteorology
- Pre-Music/Music Education
- Pre-Nursing
- Pre-Optometry
- Pre-Pharmacy
- Pre-Physical Education
- Pre-Physics
- Pre-Physical Therapy
- Pre-Political Science
- Pre-Psychology
- Pre-Social Work
- Pre-Spanish
- Pre-Veterinary Medicine

### Agriculture Transfer

**Location:** Emmetsburg Campus

**Program requirements:**

- General requirements for AA degree .................................. 40-43 credits
- Specialty requirements .................................................. 20 credits
- AGA-154 Fundamentals of Soil Science (formerly AT214A) .......... 3
- AGS-113 Survey of the Animal Industry (formerly AT113A) .......... 3
- AGA-114 Principles of Agronomy (formerly AT124A) ............... 3
- CHM-151, 152 College Chemistry I, II (formerly SC174A, 175A) .... 8 (can count as general requirements)
- AGS-319 Animal Nutrition (formerly AT218A) ....................... 3
- Electives to total 64 credits ........................................... 1-4 credits

### CAREER OPTION PROGRAMS

A number of career option programs are offered by the college. These unique programs allow the student the option of transferring to a four-year institution or going directly into employment. A student who completes the two-year program receives the Associate in Science degree. With the assistance of advisory committees, these programs are designed to ensure that students are adequately prepared to meet practical employment needs. The curriculum is composed of general education courses, specialty courses and related on-the-job training. Programs are available in the following areas.

- Accounting Specialist
- Administrative Assistant
- Aviation/Airport Management
- Broadcast Media Specialist
- Business Administration and Management
- Casino Management
- Computer Aided Drafting and Design
- Computer Programming
- Criminal Justice
- Criminal Justice – Forensics
- Early Childhood Education
- Environmental Studies
- Graphic Design Technology
- Health Care Administration
- Human Services/Disability Studies
- Information Technology
- Journalism and Photography
- Paralegal/Legal Studies
- Recreation & Leisure Management
- Sales and Marketing Management
- Sustainable Energy Resource Management
- Web Development & Design

Additional information for Iowa Lakes Community College Programs is available in the current Admissions Bulletin and online at [http://www.iowalakes.edu/programs_study/index.htm](http://www.iowalakes.edu/programs_study/index.htm)
### Accounting Specialist  
**70 credits**

**Location:** Emmetsburg, Estherville, Spencer, and Online

#### Program requirements:
- ACC-131 Principles of Accounting I *(formerly BA114A)* ..................................................3
- CSC-110 Introduction to Computers *(formerly BS106A)* ..................................................3
- ACC-161 Payroll Accounting *(formerly BA116A)* ...............................................................3
- BUS-175 Business Seminar I *(formerly BA111A)* .............................................................3
- ACC-132 Principles of Accounting II *(formerly BA124A)* ..................................................4
- ACC-261 Income Tax Accounting *(formerly BA253A)* ..........................................................3
- ACC-310 Computerized Accounting *(formerly BA125A)* .....................................................2
- ACC-941 Practicum *(formerly BA233A)* OR
- BUS-175 Business Seminar I *(formerly BA111A)* .............................................................3
- ADM-354 Business Professionalism III *(formerly BE202A)* ............................................4
- ACC-941 Practicum *(formerly BA233A)* OR
- BUS-102 Introduction to Business *(formerly BS133A)* .....................................................3

Remaining AS general requirements and electives

**Total Credits:** ..........................70

### Administrative Assistant  
**68 credits**

**Location:** Emmetsburg

#### Program requirements:
- ACC-111 Intro to Accounting *(formerly BA103A)* OR
- ACC-131 Principles of Accounting I *(formerly BA114A)* ..................................................3-4
- ADM-254 Business Professionalism *(formerly BE103A/108A)* ............................................1
- ADM-255 Business Professionalism II *(formerly BE104A/109A)* .......................................1
- ADM-132 Business Math & Calculators *(formerly BE111A)* .............................................2
- ADM-116 Keyboarding II *(formerly BE111A)* .................................................................2
- ADM-162 Office Procedures *(formerly BE116A)* .............................................................3
- BCA-134 Word Processing *(formerly BE223A)* ...............................................................3
- ADM-354 Business Professionalism III *(formerly BE204A/208A)* ....................................1
- ADM-355 Business Professionalism IV *(formerly BE205A/209A)* ....................................1
- ADM-941 Practicum *(formerly BE235A)* ................................................................. 1-5
- CSC-110 Introduction to Computers *(formerly BS106A)* ................................................3

Business electives: (select 9-12 cr. From the following or from business electives approved by advisor)

- ACC-161 Payroll Accounting *(formerly BA116A)* .............................................................3
- ACC-310 Computer Accounting *(formerly BA125A)* ........................................................3
- BCA-185 Beginning Web Page Dev. *(formerly BS105A)* ..................................................2
- BCA-217 Advanced Microsoft Office Apps *(formerly BS203A)* ........................................3
- ECON-130 Principles of Microeconomics *(formerly BS123A)* ........................................3
- BUS-115 Business Correspondence *(formerly BS293A)* ............................................1
- MGT-101 Principles of Management *(formerly BS233A)* ..................................................3

Remaining AS general requirements and electives

**Total Credits:** ..........................68

### Aviation/Airport Management  
**68 credits**

**Location:** Estherville Campus

#### Program requirements:
- AVI-180 Private Pilot Flight Lab I *(formerly AV101A)* ....................................................3
- AVI-140 Private Pilot Ground School *(formerly AV102A)* .........................................4
- AVI-245 Commercial/Instr Cross Country *(formerly AV103A)* ........................................3
- AVI-261 Commercial Pilot Ground School *(formerly AV105A)* ........................................3
- AVI-246 Commercial/Instrument Flight Lab *(formerly AV201A)* ....................................3
- AVI-212 Instrument Ground School *(formerly AV202A)* .............................................4
- AVI-300 Flight Instructor Ground School *(formerly AV204A)* ......................................3
- AVI-129 Employment Prep for Aviation Careers .........................................................1-5
- AVI-215 Aviation Safety .....................................................................................................3
- AVI-110 History of Aviation ............................................................................................3
- MMS-101 Mass Media *(formerly BC101A)* .................................................................3
- MMS-298 Portfolio Preparation *(formerly BC240A)* .....................................................0
- MMS-211 Advanced Video Editing *(formerly BC223A)* ..............................................3
- MKT-150 Principles of Advertising *(formerly BS243A)* ................................................3
- JOU-121 Newswriting & Reporting *(formerly JR153A)* .................................................3
- JOU-210 Media Law and Ethics *(formerly JR213A)* ..........................................................3

**Remaining AS general requirements and electives**

**Total Credits:** ..........................68

### Broadcast Media Specialist  
**68 credits**

**Location:** Estherville Campus

#### Program requirements:
- MMS-101 Mass Media *(formerly BC101A)* .................................................................3
- MMS-241 Public Relations and Marketing *(formerly BC112A)* ....................................3
- MMS-298 Portfolio Preparation *(formerly BC240A)* .....................................................0
- MMS-105 Audio Production *(formerly BC203A)* ..........................................................3
- MMS-941 Practicum *(formerly BC207A)* OR
- MMS-230 Advanced Video Production *(formerly BC253A)* ........................................3
- MMS-211 Advanced Video Editing *(formerly BC223A)* ..............................................3
- MKT-140 Principles of Selling *(formerly BS143A)* OR
- MMS-950 Student Production *(formerly BC221A)* ..........................................................3
- MMS-130 Video Field Production *(formerly BC243A)* ................................................3
- MMS-225 Advanced Television Production *(formerly BC241A)* ..................................3
- MMS-230 Advanced Video Production *(formerly BC253A)* ........................................3
- MKT-190 Principles of Advertising *(formerly BS243A)* ................................................3
- MKT-950 Student Production *(formerly BC221A)* ..........................................................3
- JOU-121 Newswriting & Reporting *(formerly JR153A)* .................................................3
- MKT-150 Principles of Advertising *(formerly BS243A)* ................................................3
- JOU-210 Media Law and Ethics *(formerly JR213A)* ..........................................................3

**Select two courses from the following:**
- MMS-234 Radio Workshop *(formerly BC234A)* ............................................................4
- MMS-225 Advanced Television Production *(formerly BC241A)* ..................................3
- MMS-230 Advanced Video Production *(formerly BC253A)* ........................................3

**Remaining AS general requirements and electives**

**Total Credits:** ..........................68

---

**College Transfer & Career Option Programs**

Additional information for Iowa Lakes Community College Programs is available in the current Admissions Bulletin and online at [http://www.iowalakes.edu/programs_study/index.htm](http://www.iowalakes.edu/programs_study/index.htm)
**Business Administration & Management 68 credits**

**Associate in Science Degree**

**Location:** All Sites

**Program requirements:**

**Business core requirements:**

ACC-131 Principles of Accounting I (formerly BA114A) .................................................4
ACC-132 Principles of Accounting II (formerly BA124A) .................................................4
CSC-110 Introduction to Computers (formerly BS106A) ..................................................3
BUS-175 Business Seminar I (formerly BS111A) ..............................................................1
ECN-120 Principles of Macroeconomics (formerly BS113A) .........................................3
ECN-130 Principles of Microeconomics (formerly BS123A) .........................................3
BUS-102 Intro to Business (formerly BS133A) .................................................................3
BCA-217 Advanced Microsoft Office Applications (formerly BS203A) .........................3
BUS-932 Business Internship/Practicum (formerly BS205A) ........................................3/5
MKT-110 Principles of Marketing (formerly BS223A) ......................................................3
BUS-183 Business Law (formerly BS226A) .........................................................................3
MGT-101 Principles of Management (formerly BS233A) ................................................3
BUS-115 Business Correspondence (formerly BS243A) ................................................2

**Select an option:** (Complete 3 courses – 9 credits total)

**Small Business Management**..........................................................select 9 credits

MKT-140 Principles of Selling (formerly BS134A) .........................................................3
MGT-110 Small Business Management (formerly BS213A) ...........................................3
MKT-150 Principles of Advertising (formerly BS243A) ..................................................3
BUS-250 Principles of Real Estate (formerly BS283A) ....................................................3
MGT-170 Human Resource Management (formerly BS222A) .......................................3

**Leadership**..................................................................................select 9 credits

MGT-130 Principles of Supervision (formerly BS107A) ................................................3
BUS-197 Leadership Development (formerly BS117A) ..................................................3
MGT-165 Principles of Quality (formerly BS207A) .........................................................3
BUS-200 Time, Stress & Change Mgt. (formerly BS146A) ......................................3

**Banking and Finance** .........................................................select 9 credits

FIN-101 Principles of Banking (formerly BS173A) ..........................................................3
FIN-180 Intro to Investments (formerly BS176A) ............................................................3
FIN-140 Business Finance (formerly BS216A) ..............................................................3
BUS-250 Principles of Real Estate (formerly BS283A) ....................................................3
BUS-268 Life Insurance & Financial Planning (formerly BS275A/A) ..............................3

**Human Resources** ................................................................select 9 credits

BUS-161 Human Relations (formerly BS104A) ..............................................................3
MGT-190 Employee Compensation and Benefits (formerly BS114A) ..........................3
MGT-170 Human Resource Management (formerly BS161A) .......................................3
MGT-178 Employment Law (formerly BS183A) .............................................................3
Remaining AS general requirements and electives

**Total credits**..................................................................................68

**Casino Management 70 credits**

**Associate in Science Degree**

**Location:** Emmetsburg Campus

**Program requirements:**

CAS-113 Introduction to Gaming ....................................................................................3
CAS-122 Gaming - Management of Table Games .........................................................3
HCM-591 Housekeeping Management (formerly BH109A) ........................................3
ACC-131 Principles of Accounting I (formerly BA114A) .................................................4
CSC-110 Introduction to Computers (formerly BS106A) .................................................3
......(can count as general requirement)
CAS-113 Gaming Internship courses .....................................................................6 credits total
HCM-594 Food and Beverage Mgt (formerly BH226A) ..............................................4
CRJ-208 Introduction to Private Security .....................................................................3
ACC-132 Principles of Accounting II (formerly BA124A) .............................................4
MGT-101 Management (formerly BS230A) .................................................................3
CAS-164 Facilities Management ..................................................................................3
ECN-130 Microeconomics (formerly BS123A) .............................................................3
CAS-183 Player Development .......................................................................................3
CAS-139 Cage Operations .........................................................................................3
HCM-310 Hospitality Law (formerly BH233A) ............................................................3
PHI-105 Introduction to Ethics (formerly PH104A) .......................................................3
MKT-110 Marketing (formerly BS233A) ......................................................................3
MGT-170 Human Resources Management (formerly BS161A) .....................................3

Remaining AS general requirements and electives

**Total Credits**..................................................................................75

**Computer Aided Drafting and Design 68 credits**

**Associate in Science Degree**

**Location:** Estherville Campus

**Program requirements:**

MAT-127 College Algebra and Trig. (formerly MA115A) ................................................5
CSC-110 Intro to Computers (formerly BS106A) ..........................................................3
CAD-119 Computer Aided Drafting I (formerly CD119A) .............................................3
CAD-225 Descriptive Geometry (formerly CD132A) ..................................................2
CAD-121 Computer Aided Drafting II (formerly CD129A) ..........................................3
CAD-165 Rendering and Animation (formerly CD123A) .............................................3
CAD-901 CAD Practicum (formerly CD206A) ............................................................5
CAD-140 Parametric Solid Modeling I (formerly CD216A) .........................................3
CAD-230 Geometric Dimensioning/Tolerancing (formerly CD232A) .........................2
PHY-162 College Physics I (formerly SC184A) ............................................................3
EGT-139 Statics Engineering (formerly SC287A) ........................................................4
PHY-172 College Physics II (formerly SC185A) ............................................................4
CAD-136 Technical Design (formerly CD133A) ..........................................................3
CAD-141 Parametric Solid Modeling II (formerly CD226A) .......................................3
WTI-126 Basic Hydraulics (formerly WT126A) .............................................................3
CIS-141 Computer Science (formerly CS138A) ..........................................................3

Remaining AS general requirements and electives

**Total credits**..................................................................................68

**Computer Programming 68 credits**

**Associate in Science Degree**

**Location:** Estherville Campus

**Program requirements:**

CSC-110 Intro to Computers (formerly BS106A) ..........................................................3
......(can count as general requirement)
NET-140 Network Essentials (formerly IT115A) ........................................................4
CIS-141 Computer Science (formerly CS138A) ..........................................................3
CIS-125 Intro to Prog. Logic w/Language (formerly CS116A) ....................................3
CIS-161 C++ (formerly CS223A) ..................................................................................3
CIS-332 Database AND SQL (formerly CS233A) ........................................................3
CIS-612 Advanced Visual Basic (formerly CS238A) .................................................3
NET-122 Computer Hardware Basics (formerly IT110A) ............................................3
CIS-171 JAVA (formerly CS273A) ..........................................................3
CIS-941 Computer Science Practicum (formerly CS235A) .........................................5
MAT-157 Statistics (formerly MA294A) ..........................................................4
MAT-140 Finite Math (formerly MA153A) .................................................................3
......(can count as general requirement)
Remaining AS general requirements and electives

**Total credits**..................................................................................68
College Transfer & Career Option Programs

Criminal Justice 68 credits

Associate in Science Degree
Location: Estherville Campus

Program requirements:
Criminal Justice core (all students):
CRJ-100 Intro to Criminal Justice (formerly CJ133A) .............3
CRJ-200 Criminology (formerly CJ233A) .........................3
CRJ-207 Drug Use and Abuse (formerly CJ223A) .............3
CRJ-133 Constitutional Criminal Procedure .........................3
CRJ-201 Juvenile Delinquency (formerly CJ223A) .............3
CRJ-200 Criminology (formerly CJ233A) .........................3

Criminal Justice - Forensics 73 credits

Associate in Science Degree
Location: Estherville Campus

Program requirements:
CRJ-115 Law Enforcement Seminar I (formerly CJ121A) ...........1
CRJ-100 Intro to Criminal Justice (formerly CJ133A) .............3
CRJ-170 Overview of Cyber Crime (formerly CJ283A) .............3
NET-122 Computer Hardware Basics (formerly IT110A) ..........3
CSC-110 Introduction to Computers (formerly BS106A) ..........3
CRJ-116 Law Enforcement Seminar II (formerly CJ121A) ........1
CRJ-131 Criminal Law and Procedure (formerly CJ243A) ........3
NET-140 Networking Essentials (formerly IT115A) .................4
CRJ-218 Field Experience I — Law Enforcement (formerly CJ202A) ........2
CRJ-219 Field Experience II — Law Enforcement (formerly CJ203A) ........3
CRJ-270 Forensic Computer Science I (formerly CJ273A) ........3
CRJ-207 Drug Use and Abuse (formerly CJ223A) .............3
CRJ-200 Criminology (formerly CJ233A) .........................3

Environmental Studies 68 credits

Associate in Science Degree
Location: Estherville Campus

Program requirements:
EVS-114 Environmental Studies I (formerly EV114A) .............4
EVS-244 Env. Technology Techniques (formerly EV244A) ........4
EVS-254 Intro to Natural Resources (formerly EV254A) .............4
EVS-264 Natural Resources Mgt Techniques (formerly EV264A) ........4
EVS-941 Practicum (formerly EV274A) .........................4

Early Childhood Education 68 credits

Associate in Science Degree
Location: Emmetsburg Campus

Program requirements:
ECE-170 Child Growth & Development (formerly CC102A) .............3
ECE-110 Child Care Professionals I (formerly CC110A) .............3
ECE-115 Child Development Study Tour (formerly CC111A) ........1
ECE-133 Child Health, Safety & Nutrition (formerly CC112A) .......3
ECE-103 Intro to Early Childhood Education (formerly CC114A) ........3
ECE-111 Child Care Professionals II (formerly CC120A) ............1
ECE-163 Play & Creative Arts for Children (formerly CC126A) .....4
ECE-182 Practicum I (formerly CC121A) .........................2
ECE-290 Early Childhood Program Admin. (formerly CC223A) .......3
ECE-164 Inquiry Activities (formerly CC128A) .....................3
ECE-243 Early Childhood Guidance (formerly CC125A) ............3
ECE-140 Early Childhood Curric. Planning (formerly CC134A) ......3
EDU-235 Children's Literature (formerly ED203A) ................3
(Can count as general requirement)

JOU-210 Early Childhood Professionals I (formerly CC210A) ........1
JOU-272 Practicum II (formerly CC211A) .........................2
JOU-261 Contemporary Issues in Child Care (formerly CC213A) .....3
JOU-130 Emergency Care (formerly CC113A) .....................1
JOU-211 Early Childhood Professionals II (formerly CC220A) .....3
JOU-273 Practicum III (formerly CC221A) .........................1
CSC-110 Introduction to Computers (formerly BS106A) ..........3
(Can count as general requirement)
SOC-120 Marriage and Family (formerly SS223A) .............3
(Can count as general requirement)

Remainig AS general requirements and electives
Total credits ......................................................68

Take one of the following groups of two courses:
ENG-106 Composition II (formerly EN123A) .........................3
ART-101 Art Appreciation (formerly AR103A) ..........3
ART-127 Digital Illustration (formerly AR117A) .............3
PHI-105 Introduction to Ethics (formerly PH104A) .................3
MAT-110 Math for Liberal Arts (formerly MA103A) .............3
CRJ-272 Forensic Computer Science II (formerly CJ283A) ........3
CRJ-271 Internet Criminal Investigation (formerly CJ285A) ........3
CRJ-117 Independent Study – Law Enforcement (formerly CJ101A) ........1

Remaining AS general requirements and electives
Total credits ......................................................73

Environmental Design Technology 69 credits

Associate in Science Degree
Location: Estherville Campus

Program requirements:
ENG-106 Composition II (formerly EN123A) .........................3
JOU-171 Introduction to Photography (formerly JR113A) OR
JOU-173 Digital Photography (formerly JR123A) .............3
ART-101 Art Appreciation (formerly AR103A) ..........3
Satisfies humanities requirement
GRA-234 Dreamweaver Level I (formerly BG163A) .............3
GRA-118 Electronic Publishing (formerly AR108A) .............3
Satisfies computer/business requirement
ART-127 Digital Illustration (formerly AR117A) .............3
ART-133 Drawing (formerly AR119A) .........................3
GRA-175 Graphic Design (formerly AR125A) .............3
GRA-188 Advertising Layout & Composition (formerly AR133A) ........3
GRA-140 Digital Imaging (formerly AR163A) .............3
GRA-121 Digital Drawing (formerly AR173A) .............3
JOU-210 Media Law and Ethics (formerly JR213A) .............3
ART-121 Z-D Design (formerly AR233A) .............4
GRA-162 Web Page Graphics (formerly AR106A) .............3
GRA-932 Internship (formerly AR234A) .............4

Remaining AS general requirements and electives
Total credits ......................................................69

21
### Health Care Administration 69 credits

**Associate in Science Degree**  
**Location:** Spencer Campus (Weekend College)

**Program requirements:**
- CSC-110 Introduction to Computers (formerly BS100A) ........................................ 3
  (can count as general requirement)
- HCA-130 Communication with the Elderly (formerly GR111A) .......................... 3
- PSY-111 Introduction to Psychology (formerly FY113A) ................................ 3
  (can count as general requirement)
- HCA-280 Health Care Practicum I (formerly HC111A) .................................. 2
- ACC-131 Principles of Accounting I (formerly BA111A) .................................. 4
- SOC-115 Social Problems (formerly SS123A) ................................................. 3
  (can count as general requirement)
- HCA-110 Health Care Administration I (formerly HC113A) .......................... 3
- HCA-281 Health Care Admin. Practicum II (formerly HC122A) .................... 3
- HCA-111 Health Care Administration II (formerly HC123A) ......................... 3
- HCA-135 Gerontology (formerly GR123A) ..................................................... 3
- DSV-150 Survival Spanish/Social Services (formerly HD132A) ....................... 2
- DSV-135 Assessment and Instruction (formerly HD116A) .......................... 3
- DSV-160 Counseling Skills (formerly HD224A) .............................................. 4
- HCA-282 Health Care Admin. Practicum III (formerly HC132A) ................. 3
- HCA-112 Health Care Administration III (formerly HC133A) ......................... 3
- HCA-125 Health Care Accounting (formerly HC211A) ................................... 1
- HCA-283 Health Care Admin. Practicum IV (formerly HC212A) ................. 2
- HCA-284 Health Care Admin. Practicum V (formerly HC222A) .................... 2
- HSC-223 Human Relations (formerly HD223A) ............................................ 2
- HCA-120 Legal & Political Aspects of HCA (formerly HC226A) .................. 3
- HCA-285 Health Care Practicum VI (formerly HC231A) ............... 3
- MGT-101 Principles of Management (formerly BS236A) ................................. 3
- BIO-163 Essentials of Anatomy & Physiology (formerly SC240A) ............. 4
  (can count as general requirement)
- ENG-106 Composition II (formerly EN123A) ............................................. 3
- HCA-946 Seminar (formerly HC231A) ....................................................... 1

Remaining AS general requirements and electives  
Total credits ............................................. 69

### Human Services/Disability Studies 68 credits

**Associate in Science degree**  
**Location:** Estherville Campus

**Program requirements:**
- PSY-111 Introduction to Psychology (formerly FY113A) ................................ 3
  (can count as general requirement)
- DSV-135 Assessment and Instruction (formerly HD116A) .......................... 3
- DSV-125 Behavior Management (formerly HD123A) .................................... 3
- DSV-155 Services and Vocational Planning (formerly HD214A) ............... 4
- DSV-160 Counseling Skills (formerly HD224A) ............................................. 4
- HSV-162 Intro to Human Disabilities & Services (formerly ED126A) ........ 3
- DSV-941 HS/DS Practicum (formerly HD234A/HD236A) ............................ 4 or 6
- SCS-101 Basic Sign Language (formerly HD206A) ...................................... 2
- DSV-150 Survival Spanish/Social Services (formerly HD123A) .................. 2
- SOC-115 Social Problems (formerly SS123A) ................................................. 3
- PSY-121 Developmental Psychology (formerly FY223A) .......................... 3
- OR
- PSY-241 Abnormal Psychology (formerly FY243A) ..................................... 3
- SOC-120 Marriage and Family (formerly SS222A) ...................................... 3
- SOC-200 Minority Group Relations (formerly SS273A) ............................ 3
- HSV-140 Social Work and Social Welfare (formerly SS193A) .................. 3

Remaining AS general requirements and electives  
Total Credits ............................................. 68

### Information Technology 68 credits

**Associate in Science Degree**  
**Location:** Emmetsburg Campus

**Program requirements:**
- NET-122 Computer Hardware Basics (formerly IT110A) .................................. 4
- NET-140 Networking Essentials (formerly IT115A) .................................... 4
- NET-314 Windows Server (formerly IT120A) ............................................. 4
- NET-304 Windows Workstation Oper. Syst. (formerly IT118A) ............... 4
- NET-340 Win 2000 Active Directory (formerly IT217A) ............................ 4
- NET-330 Windows 2003 Networking (formerly IT216A) .................................. 4
- BCA-185 Beginning Web Page Development (formerly BS105A) ................. 3
- CIS-141 Computer Science (formerly CS131A) ......................................... 3
- CIS-332 Data Base and SQL (formerly CS233A) ................................ ......... 3
- NET-910 Co-op Work Experience (formerly IT139A) .............................. 3

Complete a total of 3 courses from the Certification Electives and Certification Core Electives Below.

**Certification electives:**
- NET-384 Windows Directory Services Dsgn (formerly IT219A) .................. 4
- NET-621 Designing Security (formerly IT221A) .......................................... 4
- NET-374 Design Windows Network Infrastr. (formerly IT232A) ............... 4

**Certification core electives:**
- NET-653 Microsoft Exchange Server (formerly IT226A) ......................... 4
- NET-712 SQL Database (formerly IT227A) ............................................... 4

Remaining AS general requirements and electives  
Total credits ............................................. 68

### Journalism and Photography 68 credits

**Associate in Science Degree**  
**Location:** Estherville Campus

**Program requirements:**
- JOU-220 Advanced Newswriting (formerly JR156A) .................................... 3
- JOU-221 News & Forensic Photography (formerly JR166A) ....................... 3
- ART-226 Photography: Portraiture (formerly JR226A) .............................. 3
- MMS-101 Mass Media (formerly BC101A) ................................................. 3
- GRA-118 Electronic Publishing (formerly AR108A) .................................... 3
- ART-127 Digital Illustration (formerly AR117A) ...................................... 3
- GRA-140 Digital Imaging (formerly AR163A) ............................................. 3
- JOU-171 Introduction to Photography (formerly JR113A) ....................... 3
- JOU-121 Newswriting and Reporting (formerly JR153A) ...................... 3
- JOU-941 Practicum (formerly JR224/236A) ............................................. 2/5
- MKT-140 Principles of Selling (formerly BS143A) OR
- MKT-110 Principles of Marketing (formerly BS233A) ............................... 3
- JOU-140 Newspaper Lab I (formerly JR110A) ............................... 2
- JOU-141 Newspaper Lab II (formerly JR122A) ......................................... 2
- JOU-240 Newspaper Lab III (formerly JR212A) ....................................... 2
- JOU-241 Newspaper Lab IV (formerly JR220A) ...................................... 2
- JOU-210 Media Law and Ethics (formerly JR213A) .................................. 3
- JOU-173 Digital Photography (formerly JR123A) .................................... 3
- ENG-106 Composition II (formerly EN123A) ........................................... 3

Remaining AS general requirements and electives  
Total credits ............................................. 68

### Paralegal/Legal Studies 68 credits

**Associate in Science Degree**  
**Location:** Estherville Campus

**Program requirements:**
- ENG-106 Composition II (formerly EN123A) ........................................... 3
- LGL-255 Employment Law (formerly LA143A) .......................................... 3
- LGL-111 Introduction to Law and Paralegal (formerly LA114A) ............... 3
- LGL-250 Family Law (formerly LA122A) .................................................. 3
- LGL-151 Legal Research & Writing I (formerly LA124A) ......................... 3
- CRJ-131 Criminal Law and Procedure (formerly CJ243A) .......................... 3
- LGL-180 Torts and Litigation (formerly LA213A) ................................... 3
- LGL-140 Wills, Trusts and Estate Admin (formerly LA214A) .................. 3
- LGL-155 Legal Writing and Drafting (formerly LA222A) ....................... 3
- LGL-240 Civil Procedure and Practice (formerly LA224A) .................. 4
- LGL-941 Legal Assistant Practicum (formerly LA238A/235A) ................. 4/6

Complete at least two of the following four courses
- ACC-261 Income Tax Accounting (formerly BA253A) .............................. 3
- BUS-250 Principles of Real Estate (formerly BS283A) ............................ 3
- LGL-200 American Trial Process (formerly LA133A) .................................. 3
- BUS-183 Business Law (formerly BS285A) .............................................. 3

Remaining AS general requirements and electives  
Total Credits ............................................. 68
### Recreation & Leisure Management 68 credits

**Associate in Science Degree**  
*Location: Emmetsburg Campus*

**Program requirements:**
- REC-114 Foundations of Recreation (formerly RE114A) .......... 4
- REC-118 Recreation Leadership (formerly RE118A) .......... 4
- REC-122 Recreation Fieldwork I (formerly RE122A) .......... 2
- PEH-102 Health (formerly PE203A) .......... 3
- PEH-142 First Aid (formerly PE213A) .......... 3
- REC-214 Prog. Planning and Organization (formerly RE214A) .......... 4
- REC-133 Outdoor Living Skills (formerly RE133A) .......... 3
- REC-130 Orienteering (formerly RE132A) ..................... 2
- MGT-110 Small Business Mgt. (formerly BS213A) .......... 3
- REC-112 Backcountry Cooking (formerly BS212A) .......... 2
- MGT-131 Principles of Supervision (formerly BS217A) .......... 3
- REC-133 Outdoor Living Skills (formerly RE133A) .......... 3
- REC-140 Kayaking ............................................. 1
- MGT-110 Small Business Mgt. (formerly BS213A) .......... 3
- REC-133 Outdoor Living Skills (formerly RE133A) .......... 3
- REC-130 Orienteering (formerly RE132A) ..................... 2
- PSY-111 Intro to Psychology (formerly PY113A) .......... 3
- PEA-187 Fndmtls of Weight Training (formerly PE191A) .......... 3
- Total Credits ................................................. 68

Remaining AS general requirements and electives

### Sustainable Energy Resource Management 70 credits

**Associate in Science Degree**  
*Location: Estherville*

**Program requirements:**
- SER-101 Intro to Sustainable Energy Resources ............ 3
- EVS-203 Environmental Seminar I (formerly EV203A) .......... 1
- BUS-102 Introduction to Business (formerly BS133A) .......... 3
- CSC-110 Intro to Computers (formerly BS106A) .......... 3
- PSY-111 Intro to Psychology (formerly PY113A) .......... 3
- EVS-114 Environmental Studies I (formerly EV114A) .......... 4
  *(can count as general requirement)*
- EVS-124 Environmental Studies II (formerly BS124A) .......... 4
- SER-111 Intro to Wind Energy Resources .......... 3
- EVS-204 Environmental Seminar II (formerly EV204A) .......... 1
- MKT-140 Principles of Selling (formerly BS243A) .......... 3
- EVS-941 Environmental Practicum (formerly EV274A) .......... 4
- SER-121 Intro to Biomass Energy Resources .......... 3
- ACC-131 Principles of Accounting I (formerly BA114A) .......... 4
- MKT-110 Principles of Marketing (formerly BS233A) .......... 3
- ECN-120 Macroeconomics (formerly BS113A) .......... 3
- SER-201 Sustainable Energy Resources Mgt ........ 3
- ACC-132 Principles of Marketing II (formerly BS124A) .......... 4
- ECN-130 Microeconomics (formerly BS123A) .......... 3
- SER-201 Sustainable Energy Resources Mgt ........ 3
- MGT-101 Principles of Management (formerly BS293A) .......... 3
- PHI-105 Introduction to Ethics (formerly PH104A) .......... 3
- Total Credits ................................................. 70

Remaining AS general requirements and electives

### Sales and Marketing Management 69 credits

**Associate in Science Degree**  
*Location: Emmetsburg Campus*

This program builds on the background provided by the one-year diploma in the Sales and Marketing program. The second year adds liberal arts courses and additional preparation for job opportunities or continuation at a four-year college.

**Program requirements:**
- BUS-161 Human Relations (formerly BS104A) .......... 3
- ACC-111 Intro to Accounting (formerly BA103A) .......... 3
- BUS-106 Employment Strategy (formerly BS112A) .......... 2
- MKT-142 Consumer Behavior (formerly BS229A) .......... 3
- MKT-155 Visual Merchandising (formerly BS114A) .......... 4
- MKT-938 On-the-Job Training (formerly BS126A) .......... 2
- MKT-171 Retail Buying (formerly BS134A) .......... 4
- MKT-140 Principles of Selling (formerly BS134A) .......... 3
- MKT-162 Retail Merchandising (formerly BS218A) .......... 3
- MGT-131 Principles of Supervision (formerly BS217A) .......... 3
- BUS-932 Practicum (formerly BS205A) .......... 5
- MKT-110 Principles of Marketing (formerly BS223A) .......... 3
- MKT-150 Principles of Advertising (formerly BS243A) .......... 3
- BCA-212 Intro to Computer Bus Apps (formerly BS103A) OR
- GRA-121 Digital Drawing (formerly AR133A) .......... 3
- CIS-100 Introduction to Computers (formerly BS106A) .......... 3
- MKT-290 Professionalism: DEX/DECA* (formerly BS106A) .......... 0-1
- MKT-291 Professionalism II: DEX/DECA* (formerly BS106A) .......... 0-1
- MKT-292 Professionalism III: DEX/DECA* (formerly BS106A) .......... 0-1
- MKT-293 Professionalism IV: DEX/DECA* (formerly BS106A) .......... 0-1
  *(Take at least 2 DECA Activities for credit)*

Total Credits ................................................. 69

Remaining AS general requirements and electives

### Web Development & Design 68 credits

**Associate in Science Degree**  
*Location: Estherville Campus*

**Program requirements:**
- CIS-204 Web Programming I (formerly CS143A) .......... 3
- GRA-121 Digital Drawing (formerly AR133A) .......... 3
- MKT-150 Principles of Advertising (formerly BS243A) .......... 3
- CSC-110 Intro to Computers (formerly BS106A) .......... 3
- GRA-140 Digital Imaging (formerly AR163A) .......... 3
- MKT-110 Principles of Marketing (formerly BS233A) .......... 3
- GRA-234 Dreamweaver Level I (formerly BS163A) .......... 3
- GRA-932 Web Development Internship (formerly BS204A) .......... 4
- GRA-235 Dreamweaver Level II (formerly BS164A) .......... 3
- GRA-162 Web Page Graphics (formerly AR106A) .......... 3
- JOU-173 Digital Photography (formerly JR132A) .......... 3
- GRA-236 Dreamweaver Level III (formerly BS264A) .......... 3
- CIS-125 Intro to Program Logic w/lang (formerly CS116A) .......... 3
- CEE-332 Data Base and SQL (formerly CS223A) .......... 3

Remaining AS general requirements and electives

Total Credits ................................................. 68
Technical Programs

Two-year technical programs are designed to prepare students for successful job entry. The Associate in Applied Science degree is awarded on completion. Some courses may be transferable to other colleges.

Programs are available in the following areas:
Agribusiness Technology
Agriculture Production Technology
Associate Degree Nursing
Auto Collision and Paint Technology
Automotive Technology
Biomass Energy Processing
Construction Technology
Farm Equipment and Diesel Technology
Hotel and Restaurant Management
Marine and Small Engine Technology
Medical Assistant
Medical Office Technology
Motorcycle and Small Engine Technology
Paramedic Specialist
Surgical Technology
Wind Energy and Turbine Technology

Agribusiness Technology

Associate in Applied Science Degree
Location: Emmetsburg Campus

Required Courses Credits
AGB-339 Intro to Ad Layout (formerly AB111A) ..............................................1
AGC-106 Intro to Computers (formerly AB118A) ..........................................2
AGB-194 Beginning Sales (formerly AB117A) ..................................................2
AGB-343 Office Procedure (formerly AB132C) ..................................................2
AGB-437 Commodity Marketing (formerly AB133A) .......................................1
AGC-316 Field Studies-Agribusiness (formerly AB137C) ..................................1
AGC-340 Advertising (formerly AB139A) ..........................................................1
AGC-307 Begin Accounting (formerly AB218C) ..................................................2
AGB-210 Agricultural Law (formerly AB225A) ....................................................2
AGG-242 Precision Agricultural Apps (formerly AB227A) ...............................2
AGA-112 Agronomy (formerly AC112A) ............................................................2
AGA-156 Introduction to Soils (formerly AC113A) .............................................3
AGC-283 Pesticide App Certification (formerly AC122A) .................................2
AGC-284 Ag Chemicals II (formerly AC132A) ....................................................3
AGA-352 Intro to Fertilizer Technology (formerly AC132A) ......................2
AGA-131 Plant Physiology (formerly AC137A) ..................................................2
AGC-374 Crop Pest Identification (formerly AC141A) ......................................2
AGA-113 Advanced Agronomy (formerly AC132A) .........................................2
AGA-353 Advanced Soil Fertility (formerly AC222A) .....................................2
WEL-337 Industrial Technical Welding (formerly AE112C) ..............................2
MAT-785 Agricultural Math (formerly AG102C) ...............................................2
COM-780 Communication Skills (formerly AG106C) ....................................2
AGB-109 Introduction to Human Relations (formerly AG112A) .......................2
AGC-111 Basic First Aid/Life Support (formerly AG114A) ...............................1
AGM-111 Equipment Maintenance (formerly AG114C) ..................................1
AGC-850 Employ Exp I – Agribusiness (formerly AG115A) ............................3
AGC-851 Employ Exp II – Agribusiness (formerly AG115A) ............................3
AGC-852 Employ Exp III – Agribusiness (formerly AG215A) ..........................5
COM-743 Oral Comm in the Workplace (formerly AG216C) .........................2
AGC-215 Agricultural Sociology (formerly AG228C) ......................................2
AGC-200 Career Seminar (formerly AG227A) ..................................................1
AGC-853 Employ Exp IV – Agribusiness (formerly AG228A) .........................2
AGA-104 Applied Computers in Ag (formerly AG229A) ..................................2
AGS-114 Survey of the Animal Industry (formerly AS122A) .........................2
AGS-317 Animal Nutrition (formerly AS127A) ..................................................2
AGS-117 Animal Science (formerly AS214A) ....................................................2
AGC-436 Grain Merchandising (formerly AD219A) .......................................2
AGG-930 Agriculture Seminar (formerly AB122A) ........................................2
AGB-101 Ag Economics & Management (formerly AB223A) ......................3
AGA-166 Agricultural Finance (formerly AD216A) .......................................3
AGB-437 Commodity Marketing (formerly AD133A) ..................................3
AGC-116 Introduction to Accounting (formerly BA103A) ...............................3
AGA-156 Introduction to Soils (formerly AC129A) ...........................................3
AGC-317 Agriculture Field Studies (formerly AG131C) ..................................1
AGM-203 Ag Welding (formerly AE137C) ..........................................................2
AGM-161 Ag Construction (formerly AE144C) ..................................................1
AGG-311 Animal Science (formerly AG141A) ....................................................2
AGC-117 Advanced Agronomy (formerly AC132A) .......................................2
AGC-353 Advanced Soil Fertility (formerly AC222A) .....................................2
WEL-337 Industrial Technical Welding (formerly AE112C) ..............................2
MAT-785 Agricultural Math (formerly AG102C) ...............................................2
COM-780 Communication Skills (formerly AG106C) ....................................2
AGB-109 Introduction to Human Relations (formerly AG112A) .......................2
AGC-111 Basic First Aid/Life Support (formerly AG114A) ...............................1
AGM-111 Equipment Maintenance (formerly AG114C) ..................................1
AGC-850 Employ Exp I – Agribusiness (formerly AG115A) ............................3
AGC-851 Employ Exp II – Agribusiness (formerly AG115A) ............................3
AGC-852 Employ Exp III – Agribusiness (formerly AG215A) ..........................5
COM-743 Oral Comm in the Workplace (formerly AG216C) .........................2
AGC-215 Agricultural Sociology (formerly AG228C) ......................................2
AGC-200 Career Seminar (formerly AG227A) ..................................................1
AGC-853 Employ Exp IV – Agribusiness (formerly AG228A) .........................2

Agriculture Production Technology

Associate in Applied Science Degree
Location: Emmetsburg Campus

Required Courses Credits
AGB-437 Commodity Marketing (formerly AB133A) ..................................3
AGB-110 Human Relations I (formerly AG102A) ...........................................2
BUS-161 Human Relations (formerly BS104A) ...............................................3
AGC-854 Employ Exp I – FM (formerly AG103A) .............................................3
AGC-102 Computers in Agriculture (formerly AB118A) ...............................2
AGS-114 Survey of the Animal Industry (formerly AS122A) .........................2
AGA-112 Agronomy (formerly AC112A) ..........................................................2
COM-740 Oral Communications (formerly AG222C) ..................................2
AGB-283 Pesticide App Certification (formerly AC122A) ...............................2
AGC-855 Employ Exp II – FM (formerly AG123A) .........................................3
AGC-317 Agriculture Field Studies (formerly AG131C) ..................................1
AGM-203 Ag Welding (formerly AE137C) ..........................................................2
AGM-161 Ag Construction (formerly AE144C) ..................................................1
AGG-311 Animal Science (formerly AG141A) ....................................................2
AGC-117 Advanced Agronomy (formerly AC132A) .......................................2
AGA-166 Agricultural Finance (formerly AC119A) .........................................3
AGS-329 Swine Reproduction & Mgt (formerly AS117A) ................................2
AGS-400 Swine Production I (formerly AS114A) .............................................2
AGS-375 Integrated Pest Mgt/Crop (formerly AC136A) .................................2
AGS-114 Survey of the Animal Industry (formerly AS122A) .........................2
AGP-329 Introduction to GPS (formerly AC217A) .......................................3
AGB-101 Ag Economics & Management (formerly AB223A) ......................3
AGC-116 Introduction to Accounting (formerly BA103A) ...............................3
AGA-156 Introduction to Soils (formerly AC129A) ...........................................3
AGC-317 Agriculture Field Studies (formerly AG131C) ..................................1
AGM-203 Ag Welding (formerly AE137C) ..........................................................2
AGM-161 Ag Construction (formerly AE144C) ..................................................1
AGG-311 Animal Science (formerly AG141A) ....................................................2
AGC-117 Advanced Agronomy (formerly AC132A) .......................................2
AGC-353 Advanced Soil Fertility (formerly AC222A) .....................................2
WEL-337 Industrial Technical Welding (formerly AE112C) ..............................2
MAT-785 Agricultural Math (formerly AG102C) ...............................................2
COM-780 Communication Skills (formerly AG106C) ....................................2
AGB-109 Introduction to Human Relations (formerly AG112A) .......................2
AGC-111 Basic First Aid/Life Support (formerly AG114A) ...............................1
AGM-111 Equipment Maintenance (formerly AG114C) ..................................1
AGC-850 Employ Exp I – Agribusiness (formerly AG115A) ............................3
AGC-851 Employ Exp II – Agribusiness (formerly AG115A) ............................3
AGC-852 Employ Exp III – Agribusiness (formerly AG215A) ..........................5
COM-743 Oral Comm in the Workplace (formerly AG216C) .........................2
AGC-215 Agricultural Sociology (formerly AG228C) ......................................2
AGC-200 Career Seminar (formerly AG227A) ..................................................1
AGC-853 Employ Exp IV – Agribusiness (formerly AG228A) .........................2

Option Requirements and Electives (select 18 credits from the following options requirements and electives listed):
Crop Production
AGA-218 Grain Harvest, Hdlg, Drying (formerly AE212A) .............................2
AGA-375 Integrated Pest Mgt/Crop (formerly AC136A) .................................2
AGA-160 Agronomy-Nutrient Mgt (formerly AG216A) ..................................2
AGP-329 Introduction to GPS (formerly AC217A) .......................................3

Swine Production
AGS-400 Swine Production I (formerly AS114A) .............................................2
AGS-521 Swine Grower/Finisher Mgt (formerly AS119A) ............................1
AGS-529 Swine Reproduction & Mgt (formerly AS117A) ...............................2
AGS-510 Swine Confinement Systems (formerly AS215A) ............................2
AGS-511 Adv Swine Confinement Mgt (formerly AS215A) ............................2
AGS-520 Swine Records & Analysis (formerly AS222A) ...............................3

Beef Production
AGS-556 Intro to Beef Cow Production (formerly AS121A) ..........................2
Technical Programs

AGS-557 Advanced Beef Cow Production (formerly AS131A) ..................2
AGS-558 Grazing Systems & Forage Mgt (formerly AS142A) .............2
AGS-559 Beef Feedlot Production (formerly AS213A) ......................2
AGS-561 Advanced Beef Production (formerly AS224A) ...................2

Electives
AGB-438 Ag Futures & Future Options (formerly AD212A) ...............2
AGS-240 Animal Health (formerly AS217A) ..................................2
AGB-309 Farm Machinery Management (formerly AD222A) ...........2
Total Options and Electives ..................................................18

Four of the following must be completed prior to graduation:
AGS-350 Artificial Insemination of Cattle (formerly AS120C) .............1
AGS-562 Farm Enterprise Beef Feedlot (formerly AS251C) ...............1
AGS-565 Farm Enterprise Swine Tech (formerly AS254C) .............1
AGS-566 Farm Enterprise Swine Mgt (formerly AS255C) ...............1
AGS-563 Farm Enterprise Exp Cow-Calf (formerly AS258C) ..........1
AGS-564 Farm Enterprise Forage Mgt (formerly AS259C) .............1
AGB-439 Commodity Marketing Lab (formerly AD211C) .............1
AGA-840 Agronomy Lab (formerly AD258C) ................................1
AGB-308 Farm Machinery Mgt Lab (formerly AD221A) ...............1
Total ........................................................................................4
Grand Total ...........................................................................76 or more

Associate in Applied Science Degree

Location: Emmetsburg Campus (Day, Full-time Program)
Algona & Spencer Campuses (Evening/Weekend, Part-time program)

Admission to the Associate Degree Nursing program follows the guidelines outlined in the Prospective Nursing Student Bulletin and/or Nursing Program Student Handbook. All coursework must be completed with a grade of “C” or higher.

Graduates are eligible to take the RN NCLEX licensure exam at the end of the corresponding program. This program is fully accredited by the Iowa Board of Nursing and the Iowa Department of Education.

Prerequisites
1. Two semesters of high school chemistry with a grade of “C” or higher or four credit college chemistry (College Chemistry I and Lab) with a grade of “C” or higher is required prior to entering the ADN program.
2. Students must also successfully complete a high school computer application course or a college level introductory computer course (Introduction to Computers or Computer Familiarization) with a grade of “C” or higher.
3. Students who have completed an LPN program other than at Iowa Lakes Community College must meet Iowa Lakes Community College course competencies.

Required Courses Credits
HSC-186 Human Growth & Development (formerly HL112A) OR
PSY-121 Developmental Psychology (formerly PY223A) .................3
HSC-163 Nutrition (formerly HL118A) OR BIO-151 Nutrition ..........3
BIO-168 Anatomy & Physiology I and Lab (formerly SC274A) .......4
PNN-141 Fundamentals of Nursing Skills Lab (formerly NU154C) ....4
PNN-722 Fundamentals of Nursing Clinical (formerly NU190C) .......4
PNN-101 Math for Health Professionals (formerly NU131C) ..............1
BIO-173 Anatomy & Physiology II and Lab (formerly SC275A) ..........4
PNN-421 Maternal & Newborn Nursing (formerly NU121C) ..........2
PNN-631 Adult & Child Health Nursing (formerly NU272A) ..........9
PNN-632 Nursing Care Through the Lifespan Cl (formerly NU180C) ....3
ENG-105 Composition I (formerly EN113A) ................................3
ENH-105 Composition II (formerly EN114A) ..............................3
SOC-110 Introduction to Sociology (formerly SS113A) .................3
PSY-111 Introduction to Psychology (formerly PY113A) ..........3
BIO-186 Microbiology and Lab (formerly SC248A) ....................4
SPC-101 Fund of Oral Communication (formerly SP103A) ............3
ADN-501 Nursing Interv in Adult Health I (formerly NU247C) ..........7
ADN-502 Nursing Interv in Adult Health I Cl (formerly NU248C) ....7
ADN-461 Nursing Interv in Mental Health (formerly NU226C) ..........6
ADN-401 Nursing Interv in Mat/Child Health (formerly NU286C) ....6
ADN-462 Nursing Interv in Mental Health Cl (formerly NU222C) ..........2
ADN-402 Nursing Interv in Mat/Child Health Cl (formerly NU282C) ......2
ADN-506 Nursing Interv in Adult Health II (formerly NU248C) ..........8
ADN-507 Nursing Interv in Adult Health II Cl (formerly NU229C) ....2
Total ......................................................................................86

Automotive Collision and Paint Technology

Associate in Applied Science

Location: Emmetsburg Campus

Required Courses Credits
CRR-302 Introduction to Collision Repair (formerly BM141C) ..........2
WEL-334 Trade & Industry Welding (formerly TI103C) ..........2
BUS-161 Human Relations (formerly BS104A) ............................3
CRR-326 Sheet Metal Repair Th (formerly BM138C) .................3
CRR-327 Sheet Metal Repair Lab (formerly BM134C) ..........2
CRR-421 Non-Structural Repair Th (formerly BM136C) ..........2
CRR-422 Non-Structural Repair Lab (formerly BM138C) ..........2
CRR-203 Plastic Repairs Th (formerly BM158C) ..........................2
CRR-742 Estimating Theory (formerly BM145C) .........................2
CRR-749 Estimating Lab (formerly BM146C) ...............................1
CRR-351 Collision Lab I (formerly BM142C) ...............................2
CRR-808 Refinishing I Theory (formerly BM154C) .......................1
CRR-809 Refinishing I Lab (formerly BM155C) ............................3
COM-725 Workplace Communications (formerly CM105C) .........2
CRR-908 Cooperative Education (formerly BM150C) .............2
MAT-770 Applied Math (formerly TI102C) ................................2
CRR-540 Structural Repair Th (formerly BM176C) .....................3
CRR-541 Structural Repair Lab (formerly BM178C) .................3
CRR-606 Mechanical Repairs Th (formerly BM172C) ...............2
CRR-607 Mechanical Repairs Lab (formerly BM171C) .............2
CRR-838 Refinishing II Theory (formerly BM164C) ...............2
CRR-839 Refinishing II Lab (formerly BM163C) .......................2
CRR-352 Collision Repair Lab II (formerly BM162C) ............2
ACC-111 Intro to Accounting (formerly BA103A) .......................3
ACC-131 Principles of Accounting I (formerly BA114A) .............4
ENG-105 Composition I (formerly EN113A) ...............................3
CSC-110 Introduction to Computers (formerly BS106A) ............3
BUS-183 Business Law (formerly BS263A) ................................3
SPO-101 Fund of Oral Communication (formerly SP103A) ...........3
+ Coordinator approved electives ........................................15
Total ..................................................................................79-80

Automotive Technology

Associate in Applied Science Degree

Location: Emmetsburg Campus

Required Courses Credits
AUT-115 Automotive Shop Safety (formerly AM101C) .............1
AUT-105 Intro to Automotive Technology (formerly AM114C) ......4
AUT-630 Automotive Electrical Systems (formerly AM116C) .......5
AUT-624 Automotive Electrical Systems Lab ................................5
BUS-126 Business Principles (formerly TI112C) .........................3
WEL-334 Trade & Industry Welding (formerly TI103C) ..........2
AUT-180 Engine Repair Th .......................................................3
AUT-186 Engine Repair Lab .....................................................3
AUT-510 Brakes Theory ...........................................................2
AUT-511 Brakes Lab .................................................................3
AUT-704 Automotive Heating & Air Conditioning .....................4
AUT-410 Steering & Suspension Theory ....................................2
AUT-890 Automotive Tech OJT Training ....................................4
AUT-260 Manual Transmission Theory ....................................3
AUT-851 Automotive Engine Performance Diagnosis .................3
AUT-413 Auto Suspension & Steering Lab (formerly AM222C) ....3
COM-743 Workplace Communications (formerly AG216C) ..2
AUT-834 Automotive Fuel Systems (formerly AM124C) ..........2
AUT-827 Automotive Ignition Systems (formerly AM125C) .......4
AUT-842 Auto Computer Engine Control (formerly AM126C) ...........................................4
MAT-772 Applied Math (formerly TI124C) .................................................................3
AUT-313 Auto Manual Dr Train & Axles (formerly AM217C) ........................................3
AUT-212 Auto Trans/Transaxles Theory (formerly AM215C) .........................................4
AUT-213 Auto Trans/Transaxles Lab (formerly AM216C) ..............................................3
BUS-161 Human Relations (formerly BS104A) .............................................................3
Total..................................................................................................................80

**Biomass Energy Processing**

**Associate in Applied Science Degree**

**Location: Emmettsburg Campus**

**Required Courses Credits**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPT-103 Intro to Biomasstr</td>
<td>3</td>
</tr>
<tr>
<td>BPT-106 Industry Terminology and Safety</td>
<td>3</td>
</tr>
<tr>
<td>CSC-110 Intro to Computers</td>
<td>3</td>
</tr>
<tr>
<td>BUS-160 Human Relations</td>
<td>2</td>
</tr>
<tr>
<td>WTT-123 Alternating Current Electrical Theory I</td>
<td>4</td>
</tr>
<tr>
<td>BPT-110 Industrial Equipment</td>
<td>3</td>
</tr>
<tr>
<td>BPT-124 Mechanical Fundamentals-Process Control</td>
<td>4</td>
</tr>
<tr>
<td>COM-725 Workplace Communications</td>
<td>2</td>
</tr>
<tr>
<td>WTT-113 Direct Current Electrical Theory</td>
<td>4</td>
</tr>
<tr>
<td>MAT-110 Mathematics for Liberal Arts</td>
<td>3</td>
</tr>
<tr>
<td>BPT-932 Biomass Internship</td>
<td>3</td>
</tr>
<tr>
<td>BPT-107 Materials Management</td>
<td>3</td>
</tr>
<tr>
<td>BPT-201 Plant Process and Design (Biorefining)</td>
<td>3</td>
</tr>
<tr>
<td>BPT-113 Instrumentation (Automation-Process Control)</td>
<td>4</td>
</tr>
<tr>
<td>WEL-337 Industrial Technical Welding</td>
<td>2</td>
</tr>
<tr>
<td>BPT-130 Water Treatment</td>
<td>3</td>
</tr>
<tr>
<td>BPT-108 Plant Management</td>
<td>3</td>
</tr>
<tr>
<td>AGC-200 Career Seminar</td>
<td>1</td>
</tr>
<tr>
<td>ACC-111 Intro to Accounting</td>
<td>3</td>
</tr>
<tr>
<td>MGT-130 Principles of Supervision</td>
<td>4</td>
</tr>
<tr>
<td>Science (Chemistry or Biology)</td>
<td>4</td>
</tr>
<tr>
<td>Elective Credits</td>
<td>12</td>
</tr>
<tr>
<td>Total........................................................................................................67</td>
<td></td>
</tr>
</tbody>
</table>

**Construction Technology**

**Associate in Applied Science**

**Location: Emmettsburg Campus**

**Required Courses Credits**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CON-113 Construction Printreading (formerly CA111C)</td>
<td>2</td>
</tr>
<tr>
<td>CON-137 Foundations and Concrete (formerly CA112C)</td>
<td>7</td>
</tr>
<tr>
<td>CON-201 Framing Techniques and Lab I (formerly CA117C)</td>
<td>2</td>
</tr>
<tr>
<td>CON-202 Framing Techniques and Lab II (formerly CA118C)</td>
<td>6</td>
</tr>
<tr>
<td>CON-225 Techniques of Exterior Covering (formerly CA125C)</td>
<td>3</td>
</tr>
<tr>
<td>CON-217 Exterior Finishing (formerly CA126C)</td>
<td>3</td>
</tr>
<tr>
<td>CON-106 Construction Welding (formerly CA126C) OR</td>
<td>3</td>
</tr>
<tr>
<td>CON-120 Construction Estimating (formerly CA129C)</td>
<td>1</td>
</tr>
<tr>
<td>CON-229 Installation of Interior Finishing (formerly CA211C)</td>
<td>3</td>
</tr>
<tr>
<td>CON-228 Methods of Interior Finishing (formerly CA213C)</td>
<td>3</td>
</tr>
<tr>
<td>ENG-105 Composition I (formerly EN113A)</td>
<td>3 OR</td>
</tr>
<tr>
<td>COM-725 Workplace Communications (formerly CM108C)</td>
<td>2</td>
</tr>
<tr>
<td>MAT-770 Applied Math (formerly TI102C)</td>
<td>2</td>
</tr>
<tr>
<td>BUS-161 Human Relations (formerly BS104A)</td>
<td>3</td>
</tr>
<tr>
<td>HSC-134 First Aid/CPR (formerly TI141C)</td>
<td>1</td>
</tr>
<tr>
<td>CON-932 Internship (formerly CA295C)</td>
<td>6</td>
</tr>
<tr>
<td>ACC-111 Intro to Accounting (formerly BA103A)</td>
<td>3 OR</td>
</tr>
<tr>
<td>CSC-110 Introduction to Computers (formerly BS106A)</td>
<td>3</td>
</tr>
<tr>
<td>BUS-183 Business Law (formerly BS263A)</td>
<td>3</td>
</tr>
<tr>
<td>SPC-101 Fund of Oral Communication (formerly SP103A)</td>
<td>3</td>
</tr>
<tr>
<td>+ Coordinator approved electives</td>
<td>18</td>
</tr>
<tr>
<td>Total........................................................................................................77</td>
<td></td>
</tr>
</tbody>
</table>

**Technical Programs**

**Farm Equipment and Diesel Technology**

**Associate in Applied Science**

**Location: Emmettsburg Campus**

**Required Courses Credits**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGM-416 Combine &amp; Impl Repair &amp; Adj. (formerly FM111C)</td>
<td>4</td>
</tr>
<tr>
<td>AGM-411 Engine Repair (formerly FM118C)</td>
<td>6</td>
</tr>
<tr>
<td>AGM-415 Farm Equipment Air Conditioning (formerly FM121C)</td>
<td>4</td>
</tr>
<tr>
<td>AGM-850 Dealership Experience (formerly FM123C)</td>
<td>2</td>
</tr>
<tr>
<td>AGM-430 Differentials and Final Drives (formerly FM128C)</td>
<td>6</td>
</tr>
<tr>
<td>AGM-431 Transmissions (formerly FM127C)</td>
<td>7</td>
</tr>
<tr>
<td>AGM-114 Hydraulic I (formerly FM141C)</td>
<td>2</td>
</tr>
<tr>
<td>AGM-115 Hydraulic Components Lab (formerly FM142C)</td>
<td>3</td>
</tr>
<tr>
<td>AGM-116 Fundamentals of Hydraulics (formerly FM153C)</td>
<td>3</td>
</tr>
<tr>
<td>AGM-117 Fundamentals of Hydraulics Lab (formerly FM154C)</td>
<td>2</td>
</tr>
<tr>
<td>COM-723 Workplace Communications (formerly TI123C)</td>
<td>3</td>
</tr>
<tr>
<td>MAT-772 Applied Math (formerly TI124C)</td>
<td>3</td>
</tr>
<tr>
<td>AGM-413 Diesel Engine Overhaul (formerly FM121C)</td>
<td>5</td>
</tr>
<tr>
<td>AGM-850 Dealership Experience (formerly FM213C)</td>
<td>2</td>
</tr>
<tr>
<td>BUS-126 Business Principles (formerly TI121C)</td>
<td>3</td>
</tr>
<tr>
<td>BUS-161 Human Relations (formerly BS104A)</td>
<td>3</td>
</tr>
<tr>
<td>BCA-212 Intro to Computer Business Apps (formerly BS103A)</td>
<td>3</td>
</tr>
<tr>
<td>AGM-420 Fuel Systems (formerly FM140C)</td>
<td>2</td>
</tr>
<tr>
<td>AGM-421 Fuel Systems Lab (formerly FM146C)</td>
<td>3</td>
</tr>
<tr>
<td>AGM-300 Fundamentals of Electricity (formerly FM226C)</td>
<td>3</td>
</tr>
<tr>
<td>AGM-301 Fundamentals of Electricity Lab (formerly FM227C)</td>
<td>2</td>
</tr>
<tr>
<td>AGM-302 Electrical Components (formerly FM228C)</td>
<td>2</td>
</tr>
<tr>
<td>AGM-303 Electrical Components Lab (formerly FM229C)</td>
<td>3</td>
</tr>
<tr>
<td>WEL-334 Trade and Industry Welding (formerly TI103C)</td>
<td>2</td>
</tr>
<tr>
<td>Total........................................................................................................82</td>
<td></td>
</tr>
</tbody>
</table>

**Hotel and Restaurant Management**

**Associate in Applied Science Degree**

**Location: Emmettsburg Campus**

**Required Courses Credits**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC-111 Intro to Accounting (formerly BA103A)</td>
<td>3</td>
</tr>
<tr>
<td>BUS-121 Business Communications (formerly BE123C)</td>
<td>3</td>
</tr>
<tr>
<td>HCM-105 Food Fundamentals (formerly BH105A)</td>
<td>4</td>
</tr>
<tr>
<td>HCM-229 Nutrition for the Life Cycle (formerly BH107A)</td>
<td>4</td>
</tr>
<tr>
<td>HCM-319 Intro to the Hospitality Field (formerly BH106A) OR</td>
<td>4</td>
</tr>
<tr>
<td>HCM-591 Housekeeping Management (formerly BH109A)</td>
<td>3</td>
</tr>
<tr>
<td>HCM-705 Hospitality Club Activities I (formerly BH119C)</td>
<td>1</td>
</tr>
<tr>
<td>HCM-265 Mathematics for Hospitality (formerly BH233A)</td>
<td>3</td>
</tr>
<tr>
<td>HCM-595 Front Office Ops/Night Audit (formerly BH124A)</td>
<td>4</td>
</tr>
<tr>
<td>HCM-141 Food Production (formerly BH125A)</td>
<td>5</td>
</tr>
<tr>
<td>HCM-450 Job Seeking Skills I (formerly BH126C)</td>
<td>2</td>
</tr>
<tr>
<td>HCM-707 Hospitality Club Activities II (formerly BH129C)</td>
<td>2</td>
</tr>
<tr>
<td>HCM-938 On-the-Job Training (formerly BH135A)</td>
<td>5</td>
</tr>
<tr>
<td>HCM-593 Restaurant Management (formerly BH216A)</td>
<td>4</td>
</tr>
<tr>
<td>HCM-104 Applied Food Service Sanitation (formerly BH217A)</td>
<td>4</td>
</tr>
<tr>
<td>HCM-237 Modified Diets (formerly BH209A)</td>
<td>4</td>
</tr>
<tr>
<td>HCM-709 Hospitality Club Activities III (formerly BH219C)</td>
<td>1</td>
</tr>
<tr>
<td>HCM-451 Job Seeking Skills II (formerly BH226C)</td>
<td>2</td>
</tr>
<tr>
<td>HCM-594 Food and Beverage Mgt (formerly BH226A)</td>
<td>4</td>
</tr>
<tr>
<td>HCM-592 Convention Management (formerly BH213A)</td>
<td>3</td>
</tr>
<tr>
<td>HCM-711 Hospitality Club Activities IV (formerly BH229C)</td>
<td>1</td>
</tr>
<tr>
<td>HCM-310 Hospitality Law (formerly BH233A)</td>
<td>3</td>
</tr>
<tr>
<td>BUS-161 Human Relations (formerly BS104A)</td>
<td>3</td>
</tr>
<tr>
<td>CSC-110 Introduction to Computers (formerly BS106A)</td>
<td>3</td>
</tr>
<tr>
<td>BUS-183 Business Law (formerly BS263A)</td>
<td>3</td>
</tr>
<tr>
<td>MTK-110 Principles of Marketing (formerly BS233A)</td>
<td>3</td>
</tr>
<tr>
<td>MGT-101 Principles of Management (formerly BS259A)</td>
<td>3</td>
</tr>
<tr>
<td>SPC-101 Fund of Oral Communication (formerly SP103A)</td>
<td>3</td>
</tr>
<tr>
<td>Total........................................................................................................82</td>
<td></td>
</tr>
</tbody>
</table>
### Marine and Small Engine Technology

**Associate in Applied Science**  
**Location:** Emmetsburg Campus

**Required Courses Credits**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSE-143</td>
<td>Small Engines Theory (formerly SM143C)</td>
<td>3</td>
</tr>
<tr>
<td>MSE-146</td>
<td>Small Engines Lab (formerly SM146C)</td>
<td>3</td>
</tr>
<tr>
<td>MSE-153</td>
<td>Fundamentals of Electricity (formerly SM153C)</td>
<td>3</td>
</tr>
<tr>
<td>MSE-152</td>
<td>Drive System Fundamentals (formerly SM152C)</td>
<td>2</td>
</tr>
<tr>
<td>MSE-151</td>
<td>Shop Safety and Procedures (formerly SM151C)</td>
<td>1</td>
</tr>
<tr>
<td>HSC-134</td>
<td>First Aid/CPR (formerly TI141C)</td>
<td>1</td>
</tr>
<tr>
<td>BUS-161</td>
<td>Human Relations (formerly BS104A)</td>
<td>3</td>
</tr>
<tr>
<td>MAT-770</td>
<td>Applied Math (formerly TI102C)</td>
<td>2</td>
</tr>
<tr>
<td>MSE-164</td>
<td>Marine Engines 2/4 Stroke Th (formerly SM164C)</td>
<td>2</td>
</tr>
<tr>
<td>MSE-165</td>
<td>Marine Engines 2/4 Stroke Lab (formerly SM165C)</td>
<td>2</td>
</tr>
<tr>
<td>MSE-169</td>
<td>Marine Drive Systems Th &amp; Lab (formerly SM169C)</td>
<td>3</td>
</tr>
<tr>
<td>WEL-334</td>
<td>Trade &amp; Industry Welding (formerly TI103C)</td>
<td>2</td>
</tr>
<tr>
<td>COM-725</td>
<td>Workplace Communications (formerly CM105C)</td>
<td>2</td>
</tr>
<tr>
<td>MSE-158</td>
<td>Snowmobile Systems (formerly SM158C)</td>
<td>2</td>
</tr>
<tr>
<td>MSE-932</td>
<td>Internship (formerly SM126C)</td>
<td>4</td>
</tr>
<tr>
<td>MSE-189</td>
<td>Marine Electrical Sys Th &amp; Lab (formerly SM189C)</td>
<td>3</td>
</tr>
<tr>
<td>MSE-173</td>
<td>Marine Fuel Systems (formerly SM173C)</td>
<td>3</td>
</tr>
<tr>
<td>MSE-183</td>
<td>Personal Watercraft Systems (formerly SM183C)</td>
<td>3</td>
</tr>
<tr>
<td>ACC-111</td>
<td>Intro to Accounting (formerly BA103A)</td>
<td>3 OR</td>
</tr>
<tr>
<td>ACC-131</td>
<td>Principles of Accounting I (formerly EN113A)</td>
<td>4</td>
</tr>
<tr>
<td>CSC-110</td>
<td>Intro to Computers (formerly BS106A)</td>
<td>3</td>
</tr>
<tr>
<td>BUS-183</td>
<td>Business Law (formerly BS328A)</td>
<td>3</td>
</tr>
<tr>
<td>SPC-101</td>
<td>Fund of Oral Communication (formerly SP103A)</td>
<td>3</td>
</tr>
<tr>
<td>+ Coordinator approved electives</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>74-75</td>
</tr>
</tbody>
</table>

### Medical Assistant

**Associate in Applied Science Degree**  
**Location:** Spencer Campus

The Iowa Lakes Community College (Spencer Campus) Medical Assisting program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caheap.org) upon the recommendation of the Curriculum Review Board of the American Association of Medical Assistants Endowment (AAMAE).

**Required Courses Credits**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC-111</td>
<td>Intro to Accounting (formerly BA103A)</td>
<td>3</td>
</tr>
<tr>
<td>ACC-310</td>
<td>Computer Accounting (formerly BA125A)</td>
<td>3</td>
</tr>
<tr>
<td>ADM-116</td>
<td>Keyboarding II (formerly BE113A)</td>
<td>3</td>
</tr>
<tr>
<td>* HSC-114</td>
<td>Medical Terminology (formerly BE102A)</td>
<td>3</td>
</tr>
<tr>
<td>* CSC-110</td>
<td>Intro to Computers (formerly BS106A)</td>
<td>3</td>
</tr>
<tr>
<td>* ENG-105</td>
<td>Composition I (formerly EN113A)</td>
<td>3</td>
</tr>
<tr>
<td>MAP-128</td>
<td>Automated Medical Office (formerly ME139C)</td>
<td>2</td>
</tr>
<tr>
<td>MAP-340</td>
<td>Medical Law and Ethics (formerly ME140C)</td>
<td>2</td>
</tr>
<tr>
<td>MAP-453</td>
<td>Med Assit Mental Hlth Cnpts (formerly ME140C)</td>
<td>2</td>
</tr>
<tr>
<td>MAP-111</td>
<td>Medical Office Management I (formerly ME144C)</td>
<td>3</td>
</tr>
<tr>
<td>MAP-117</td>
<td>Medical Office Management II (formerly ME145C)</td>
<td>3</td>
</tr>
<tr>
<td>MAP-133</td>
<td>Medical Transcription (formerly ME147C)</td>
<td>3</td>
</tr>
<tr>
<td>MAP-402</td>
<td>Medical Law and Ethics (formerly ME169C)</td>
<td>3</td>
</tr>
<tr>
<td>MAP-141</td>
<td>Medical Insurance (formerly ME208C)</td>
<td>3</td>
</tr>
<tr>
<td>MAP-940</td>
<td>Medical Office Tech Practicum (formerly ME173C)</td>
<td>3</td>
</tr>
<tr>
<td>HIT-244</td>
<td>Basic CPT Coding (formerly ME186C)</td>
<td>3</td>
</tr>
<tr>
<td>HIT-245</td>
<td>Basic ICD-9-CM Coding (formerly ME187C)</td>
<td>3</td>
</tr>
<tr>
<td>MAP-135</td>
<td>Medical Transcription II (formerly ME155C)</td>
<td>3</td>
</tr>
<tr>
<td>PSY-111</td>
<td>Intro to Psychology (formerly PY113A)</td>
<td>3</td>
</tr>
<tr>
<td>SPC-101</td>
<td>Fund of Oral Communication (formerly SP103A)</td>
<td>3</td>
</tr>
<tr>
<td>+ Coordinator approved electives</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>74-75</td>
</tr>
</tbody>
</table>

### Motorcycle and Small Engine Technology

**Associate in Applied Science**  
**Location:** Emmetsburg Campus

**Required Courses Credits**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSE-143</td>
<td>Small Engines Theory (formerly SM143C)</td>
<td>3</td>
</tr>
<tr>
<td>MSE-146</td>
<td>Small Engines Lab (formerly SM146C)</td>
<td>3</td>
</tr>
<tr>
<td>MSE-153</td>
<td>Fundamentals of Electricity (formerly SM153C)</td>
<td>3</td>
</tr>
<tr>
<td>MSE-152</td>
<td>Drive System Fundamentals (formerly SM152C)</td>
<td>2</td>
</tr>
<tr>
<td>BUS-161</td>
<td>Human Relations (formerly BS104A)</td>
<td>3</td>
</tr>
<tr>
<td>MAT-770</td>
<td>Applied Math (formerly TI102C)</td>
<td>2</td>
</tr>
<tr>
<td>MCE-129</td>
<td>Motorcycle Eng 2/4 Stroke Lab (formerly MM129C)</td>
<td>2</td>
</tr>
<tr>
<td>MCE-139</td>
<td>Motorcycle Fuel Systems (formerly MM139C)</td>
<td>3</td>
</tr>
<tr>
<td>MCE-183</td>
<td>Personal Watercraft Systems (formerly SM183C)</td>
<td>3</td>
</tr>
<tr>
<td>MOT-910</td>
<td>Internship (formerly MM127C)</td>
<td>4</td>
</tr>
</tbody>
</table>

**Business Professionalism Courses**

*Complete one of the following two options:*

**Option 1**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC-111</td>
<td>Intro to Accounting (formerly BA103A)</td>
<td>3</td>
</tr>
<tr>
<td>ACC-161</td>
<td>Payroll Accounting (formerly BA116A)</td>
<td>3</td>
</tr>
<tr>
<td>ACC-311</td>
<td>Computer Accounting (formerly BA126A)</td>
<td>3</td>
</tr>
<tr>
<td>ADM-116</td>
<td>Keyboarding II (formerly BE113A)</td>
<td>3</td>
</tr>
<tr>
<td>HSC-114</td>
<td>Medical Terminology (formerly BE102A)</td>
<td>3</td>
</tr>
<tr>
<td>BCA-134</td>
<td>Word Processing (formerly BE119A)</td>
<td>3</td>
</tr>
<tr>
<td>BUS-161</td>
<td>Business Correspondence (formerly BE243A)</td>
<td>2</td>
</tr>
<tr>
<td>BCA-152</td>
<td>Comprehensive Spreadsheet (formerly BE253A)</td>
<td>3</td>
</tr>
<tr>
<td>BUS-161</td>
<td>Human Relations (formerly BS104A)</td>
<td>3</td>
</tr>
<tr>
<td>ENG-105</td>
<td>Composition I (formerly EN113A)</td>
<td>3</td>
</tr>
<tr>
<td>MAT-110</td>
<td>Math for Liberal Arts (formerly MA103A)</td>
<td>3</td>
</tr>
<tr>
<td>MAP-128</td>
<td>Automated Medical Office (formerly ME139C)</td>
<td>2</td>
</tr>
<tr>
<td>BIO-163</td>
<td>Essentials of Anatomy &amp; Physiology</td>
<td>4</td>
</tr>
<tr>
<td>HSC-217</td>
<td>Introduction to Pathology</td>
<td>3</td>
</tr>
<tr>
<td>MAP-111</td>
<td>Medical Office Management I (formerly ME144C)</td>
<td>3</td>
</tr>
<tr>
<td>MAP-117</td>
<td>Medical Office Management II (formerly ME145C)</td>
<td>3</td>
</tr>
<tr>
<td>MAP-133</td>
<td>Medical Transcription (formerly ME147C)</td>
<td>3</td>
</tr>
<tr>
<td>MAP-402</td>
<td>Medical Law and Ethics (formerly ME169C)</td>
<td>3</td>
</tr>
<tr>
<td>MAP-141</td>
<td>Medical Insurance (formerly ME208C)</td>
<td>3</td>
</tr>
<tr>
<td>MAP-940</td>
<td>Medical Office Tech Practicum (formerly ME173C)</td>
<td>3</td>
</tr>
<tr>
<td>HIT-244</td>
<td>Basic CPT Coding (formerly ME186C)</td>
<td>3</td>
</tr>
<tr>
<td>HIT-245</td>
<td>Basic ICD-9-CM Coding (formerly ME187C)</td>
<td>3</td>
</tr>
<tr>
<td>MAP-135</td>
<td>Medical Transcription II (formerly ME155C)</td>
<td>3</td>
</tr>
<tr>
<td>PSY-111</td>
<td>Intro to Psychology (formerly PY113A)</td>
<td>3</td>
</tr>
<tr>
<td>SPC-101</td>
<td>Fund of Oral Communication (formerly SP103A)</td>
<td>3</td>
</tr>
<tr>
<td>+ Coordinator approved electives</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>74-75</td>
</tr>
</tbody>
</table>

---

**Medical Office Technology**

**Associate in Applied Science Degree**  
**Location:** Spencer Campus

**Required Courses Credits**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC-111</td>
<td>Intro to Accounting (formerly BA103A)</td>
<td>3</td>
</tr>
<tr>
<td>ACC-161</td>
<td>Payroll Accounting (formerly BA116A)</td>
<td>3</td>
</tr>
<tr>
<td>ACC-311</td>
<td>Computer Accounting (formerly BA126A)</td>
<td>3</td>
</tr>
<tr>
<td>ADM-116</td>
<td>Keyboarding II (formerly BE113A)</td>
<td>3</td>
</tr>
<tr>
<td>HSC-114</td>
<td>Medical Terminology (formerly BE102A)</td>
<td>3</td>
</tr>
<tr>
<td>BCA-134</td>
<td>Word Processing (formerly BE119A)</td>
<td>3</td>
</tr>
<tr>
<td>BUS-161</td>
<td>Business Correspondence (formerly BE243A)</td>
<td>2</td>
</tr>
<tr>
<td>BCA-152</td>
<td>Comprehensive Spreadsheet (formerly BE253A)</td>
<td>3</td>
</tr>
<tr>
<td>BUS-161</td>
<td>Human Relations (formerly BS104A)</td>
<td>3</td>
</tr>
<tr>
<td>ENG-105</td>
<td>Composition I (formerly EN113A)</td>
<td>3</td>
</tr>
<tr>
<td>MAT-110</td>
<td>Math for Liberal Arts (formerly MA103A)</td>
<td>3</td>
</tr>
<tr>
<td>MAP-128</td>
<td>Automated Medical Office (formerly ME139C)</td>
<td>2</td>
</tr>
<tr>
<td>BIO-163</td>
<td>Essentials of Anatomy &amp; Physiology</td>
<td>4</td>
</tr>
<tr>
<td>HSC-217</td>
<td>Introduction to Pathology</td>
<td>3</td>
</tr>
<tr>
<td>MAP-111</td>
<td>Medical Office Management I (formerly ME144C)</td>
<td>3</td>
</tr>
<tr>
<td>MAP-117</td>
<td>Medical Office Management II (formerly ME145C)</td>
<td>3</td>
</tr>
<tr>
<td>MAP-133</td>
<td>Medical Transcription (formerly ME147C)</td>
<td>3</td>
</tr>
<tr>
<td>MAP-402</td>
<td>Medical Law and Ethics (formerly ME169C)</td>
<td>3</td>
</tr>
<tr>
<td>MAP-141</td>
<td>Medical Insurance (formerly ME208C)</td>
<td>3</td>
</tr>
<tr>
<td>MAP-940</td>
<td>Medical Office Tech Practicum (formerly ME173C)</td>
<td>3</td>
</tr>
<tr>
<td>HIT-244</td>
<td>Basic CPT Coding (formerly ME186C)</td>
<td>3</td>
</tr>
<tr>
<td>HIT-245</td>
<td>Basic ICD-9-CM Coding (formerly ME187C)</td>
<td>3</td>
</tr>
<tr>
<td>MAP-135</td>
<td>Medical Transcription II (formerly ME155C)</td>
<td>3</td>
</tr>
<tr>
<td>PSY-111</td>
<td>Intro to Psychology (formerly PY113A)</td>
<td>3</td>
</tr>
<tr>
<td>SPC-101</td>
<td>Fund of Oral Communication (formerly SP103A)</td>
<td>3</td>
</tr>
<tr>
<td>+ Coordinator approved electives</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>79</td>
</tr>
</tbody>
</table>

---
Paramedic Specialist

Associate in Applied Science Degree
Location: Emmetsburg Campus

Required Courses Credits
EMS-611 EMT-B and Lab ..........................................................6
BIO-163 Essentials of Anatomy & Phys ..................................4
HSC-114 Medical Terminology ..................................................3
EMS-612 Paramedic Spec – Prep and Lab .................................6
MAT-110 Math for Liberal Arts ..................................................3
ENG-105 Composition I ..........................................................3
EMS-615 Paramedic Spec – Clinical .........................................3
EMS-616 Paramedic Spec – Field .............................................3
EMS-613 Paramedic Spec – Airway, Patient Assess & Lab ......6
EMS-628 Paramedic Spec – Medical I & Lab ............................6
EMS-629 Paramedic Spec – Medical II & Lab ..........................6
EMS-624 Paramedic Spec – Special Consid & Lab .................4
BUS-161 Human Relations .......................................................3
EMS-614 Paramedic Spec – Trauma & Lab ...............................4
EMS-626 Paramedic Spec – Clinical .......................................4
EMS-625 Paramedic Spec – Assess Based Mgt Op & Lab ........4
EMS-627 Paramedic Spec – Field II ........................................4
SPC-101 Fundamentals of Oral Communications ..................3
Total .......................................................................................74-77

Wind Energy and Turbine Technology

Associate in Applied Science Degree
Location: Estherville Campus

Required Courses Credits
WTT-114 Field Training and Project Operations .....................5
WTT-113 Direct Current Electrical Theory ..............................4
WTT-123 Alternating Current Electrical Th I ..........................4
WTT-103 Introduction to Wind Energy ...................................3
CSC-110 Intro to Computers ..................................................3
MAT-102 Intermediate Algebra .............................................3
BUS-161 Human Relations .....................................................3
WTT-244 Alternating Current Electrical Th II ..........................4
WTT-133 Wind Turbine Mechanical Systs ..............................3
WTT-126 Basic Hydraulics .....................................................3
WTT-134 Electric Motors and Motor Controls Fund ..............4
WTT-201 Wind Turbine Site Constr & Locations .....................1
WTT-932 Wind Turbine Internship ..........................................5
BUS-121 Business Communications ....................................3
WTT-214 Basic Networking and Comp Tech ..........................3
WTT-245 Electrical Practical Applications ............................4
WTT-223 Airfoils and Composite Repair ...............................3
WTT-225 Data Communication and Acquisition ....................4
WTT-235 Programmable Logic Control Systs .......................4
WTT-204 Wind Turbine Siting ..................................................4
WTT-216 Power Generation and Distribution .........................3
MGT-101 Principles of Management ....................................3
Approved Science Elective ...................................................4
Total .......................................................................................80
Vocational Programs

Vocational programs are those which include at least the equivalent of two full-time semesters but are less than two academic years in length. A diploma is awarded upon successful completion.

Programs are available in the following areas:

- Accounting
- Auto Collision and Paint Technology
- Broadcast Media
- Child Care
- Construction Technology
- Graphic Specialist
- Landscape & Turfgrass Technician
- Marine and Small Engine Technology
- Massage Therapy
- Medical Assistant Specialist / Limited Radiography
- Motorcycle and Small Engine Technology
- Office Specialist
- Paraprofessional
- Parts Sales and Inventory Control
- Pharmacy Technology
- Photography
- Practical Nursing
- Sales and Marketing
- Secretarial Specialist
- Surgical Technology
- Web Development and Design
- Welding
- Wind Energy and Turbine Technology

Accounting

Diploma
Location: Estherville Campus

Required Courses Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC-131</td>
<td>Principles of Accounting I</td>
<td>4</td>
</tr>
<tr>
<td>ACC-161</td>
<td>Payroll Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACC-132</td>
<td>Principles of Accounting II</td>
<td>4</td>
</tr>
<tr>
<td>ACC-310</td>
<td>Computer Accounting</td>
<td>2</td>
</tr>
<tr>
<td>BUS-115</td>
<td>Business Correspondence</td>
<td>2</td>
</tr>
<tr>
<td>CSC-110</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>BUS-174</td>
<td>Business Seminar I</td>
<td>1</td>
</tr>
<tr>
<td>SPC-101</td>
<td>Fund of Oral Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENG-105</td>
<td>Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ACC-261</td>
<td>Income Tax Accounting</td>
<td>3</td>
</tr>
<tr>
<td>Approved Mathematics Elective</td>
<td>3-5</td>
<td></td>
</tr>
<tr>
<td>Approved Social Science Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Approved Humanities Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>37-39</td>
<td></td>
</tr>
</tbody>
</table>

Auto Collision and Paint Technology

Diploma
Location: Emmetsburg Campus

Required Courses Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRR-302</td>
<td>Introduction to Collision Repair</td>
<td>2</td>
</tr>
<tr>
<td>WEL-334</td>
<td>Trade &amp; Industry Welding</td>
<td>2</td>
</tr>
<tr>
<td>BUS-161</td>
<td>Human Relations</td>
<td>3</td>
</tr>
<tr>
<td>CRR-326</td>
<td>Sheet Metal Repair Th</td>
<td>3</td>
</tr>
<tr>
<td>CRR-327</td>
<td>Sheet Metal Repair Lab</td>
<td>2</td>
</tr>
<tr>
<td>CRR-421</td>
<td>Non-Structural Repair Th</td>
<td>3</td>
</tr>
<tr>
<td>CRR-422</td>
<td>Non-Structural Repair Lab</td>
<td>2</td>
</tr>
<tr>
<td>CRR-203</td>
<td>Plastic Repairs Th</td>
<td>2</td>
</tr>
<tr>
<td>CRR-742</td>
<td>Estimating Theory</td>
<td>2</td>
</tr>
<tr>
<td>CRR-749</td>
<td>Estimating Lab</td>
<td>1</td>
</tr>
<tr>
<td>CRR-351</td>
<td>Collision Lab I</td>
<td>2</td>
</tr>
<tr>
<td>CRR-808</td>
<td>Refinishing I Theory</td>
<td>1</td>
</tr>
<tr>
<td>CRR-809</td>
<td>Refinishing I Lab</td>
<td>2</td>
</tr>
<tr>
<td>COM-725</td>
<td>Workplace Communications</td>
<td>2</td>
</tr>
<tr>
<td>CRR-908</td>
<td>Cooperative Education</td>
<td>2</td>
</tr>
<tr>
<td>MAT-770</td>
<td>Applied Math</td>
<td>2</td>
</tr>
<tr>
<td>CRR-540</td>
<td>Structural Repair Th</td>
<td>3</td>
</tr>
<tr>
<td>CRR-541</td>
<td>Structural Repair Lab</td>
<td>2</td>
</tr>
<tr>
<td>CRR-606</td>
<td>Mechanical Repairs Th</td>
<td>2</td>
</tr>
<tr>
<td>CRR-607</td>
<td>Mechanical Repairs Lab</td>
<td>2</td>
</tr>
<tr>
<td>CRR-838</td>
<td>Refinishing II Theory</td>
<td>2</td>
</tr>
<tr>
<td>CRR-839</td>
<td>Refinishing II Lab</td>
<td>3</td>
</tr>
<tr>
<td>CRR-352</td>
<td>Collision Repair Lab II</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>49</td>
<td></td>
</tr>
</tbody>
</table>

Broadcast Media

Diploma
Location: Estherville Campus

Required Courses Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMS-105</td>
<td>Audio Production</td>
<td>3</td>
</tr>
<tr>
<td>MMS-115</td>
<td>TV Studio Production</td>
<td>3</td>
</tr>
<tr>
<td>SPC-101</td>
<td>Fundamentals of Oral Communications</td>
<td>3</td>
</tr>
<tr>
<td>MMS-130</td>
<td>Video Field Production</td>
<td>3</td>
</tr>
<tr>
<td>MMS-211</td>
<td>Advanced Video Editing</td>
<td>3</td>
</tr>
<tr>
<td>MKT-140</td>
<td>Principles of Selling</td>
<td>3</td>
</tr>
<tr>
<td>MMS-225</td>
<td>Advanced Television Production</td>
<td>3</td>
</tr>
<tr>
<td>MMS-234</td>
<td>Workshop</td>
<td>4</td>
</tr>
<tr>
<td>JOU-121</td>
<td>Newswriting &amp; Reporting</td>
<td>3</td>
</tr>
<tr>
<td>JOU-210</td>
<td>Media Law and Ethics</td>
<td>3</td>
</tr>
<tr>
<td>Approved Mathematics/Science Electives</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>38</td>
<td></td>
</tr>
</tbody>
</table>
### Vocational Programs

#### Child Care

**Diploma**  
**Location:** Emmetsburg Campus

**Required Courses Credits**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC-110</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>ECE-170</td>
<td>Child Growth and Development</td>
<td>3</td>
</tr>
<tr>
<td>ECE-110</td>
<td>Child Care Professionals I</td>
<td>1</td>
</tr>
<tr>
<td>ECE-115</td>
<td>Child Development Study</td>
<td>1</td>
</tr>
<tr>
<td>ECE-133</td>
<td>Child Health, Safety and Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>ECE-103</td>
<td>Intro to Childhood Education</td>
<td>4</td>
</tr>
<tr>
<td>ECE-111</td>
<td>Child Care Professionals II</td>
<td>1</td>
</tr>
<tr>
<td>ECE-182</td>
<td>Practicum I</td>
<td>2</td>
</tr>
<tr>
<td>ECE-163</td>
<td>Play and Creative Arts for Children</td>
<td>4</td>
</tr>
<tr>
<td>ECE-164</td>
<td>Inquiry Activities</td>
<td>3</td>
</tr>
<tr>
<td>EDU-235</td>
<td>Children's Literature</td>
<td>3</td>
</tr>
<tr>
<td>ECE-130</td>
<td>Emergency Care</td>
<td>1</td>
</tr>
<tr>
<td>SPC-101</td>
<td>Fund of Oral Communication</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>35</strong></td>
</tr>
</tbody>
</table>

#### Construction Technology

**Diploma**  
**Location:** Emmetsburg Campus

**Required Courses Credits**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CON-113</td>
<td>Construction Printreading</td>
<td>2</td>
</tr>
<tr>
<td>CON-137</td>
<td>Foundations and Concrete</td>
<td>7</td>
</tr>
<tr>
<td>CON-201</td>
<td>Framing Techniques and Lab I</td>
<td>2</td>
</tr>
<tr>
<td>CON-202</td>
<td>Framing Techniques and Lab II</td>
<td>6</td>
</tr>
<tr>
<td>CON-225</td>
<td>Techniques of Exterior Covering</td>
<td>5</td>
</tr>
<tr>
<td>CON-217</td>
<td>Exterior Finishing</td>
<td>3</td>
</tr>
<tr>
<td>CON-106</td>
<td>Construction Welding</td>
<td></td>
</tr>
<tr>
<td>CON-120</td>
<td>Construction Estimating</td>
<td></td>
</tr>
<tr>
<td>CON-229</td>
<td>Installation of Interior Finishing</td>
<td></td>
</tr>
<tr>
<td>CON-228</td>
<td>Methods of Interior Finishing</td>
<td></td>
</tr>
<tr>
<td>ENG-105</td>
<td>Composition I</td>
<td>3</td>
</tr>
<tr>
<td>COM-725</td>
<td>Workplace Communications</td>
<td>2</td>
</tr>
<tr>
<td>MAT-770</td>
<td>Applied Math</td>
<td>2</td>
</tr>
<tr>
<td>BUS-161</td>
<td>Human Relations</td>
<td>3</td>
</tr>
<tr>
<td>HSC-134</td>
<td>First Aid/CPR</td>
<td>1</td>
</tr>
<tr>
<td>CON-932</td>
<td>Internship</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>47-48</strong></td>
</tr>
</tbody>
</table>

#### Graphic Specialist

**Diploma**  
**Location:** Estherville Campus

**Required Courses Credits**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMS-101</td>
<td>Mass Media</td>
<td></td>
</tr>
<tr>
<td>PSY-111</td>
<td>Intro to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>GRA-118</td>
<td>Electronic Publishing</td>
<td>3</td>
</tr>
<tr>
<td>GRA-140</td>
<td>Digital Imaging</td>
<td>3</td>
</tr>
<tr>
<td>ART-121</td>
<td>2-D Design</td>
<td>4</td>
</tr>
<tr>
<td>SPC-101</td>
<td>Fund of Oral Communication</td>
<td>3</td>
</tr>
<tr>
<td>ART-133</td>
<td>Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART-101</td>
<td>Art Appreciation</td>
<td>3</td>
</tr>
<tr>
<td>ENG-105</td>
<td>Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ART-127</td>
<td>Digital Illustration</td>
<td>3</td>
</tr>
<tr>
<td>GRA-121</td>
<td>Digital Drawing</td>
<td>3</td>
</tr>
<tr>
<td>GRA-932</td>
<td>Internship</td>
<td>3</td>
</tr>
<tr>
<td>Approved Mathematics Elective</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>38</strong></td>
</tr>
</tbody>
</table>

#### Landscape & Turfgrass Technician

**Diploma**  
**Location:** Emmetsburg Campus

**Required Courses Credits**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGH-126</td>
<td>Woody Plant Material</td>
<td>4</td>
</tr>
<tr>
<td>AGH-141</td>
<td>Equipment Operations</td>
<td>3</td>
</tr>
<tr>
<td>AGH-860</td>
<td>Horticulture Careers/Field Trips</td>
<td>2</td>
</tr>
<tr>
<td>AGH-117</td>
<td>Weed Identification</td>
<td>2</td>
</tr>
<tr>
<td>AGB-110</td>
<td>Human Relations</td>
<td>2</td>
</tr>
<tr>
<td>AGA-156</td>
<td>Introduction to Soils</td>
<td>3</td>
</tr>
<tr>
<td>AGH-160</td>
<td>Landscape Install/Maint. II</td>
<td>1</td>
</tr>
<tr>
<td>AGH-165</td>
<td>Irrigation Installation &amp; Repair</td>
<td>2</td>
</tr>
<tr>
<td>AGH-405</td>
<td>Golf Course Maintenance</td>
<td>3</td>
</tr>
<tr>
<td>AGH-128</td>
<td>Plant Material II</td>
<td>4</td>
</tr>
<tr>
<td>AGH-113</td>
<td>Turfgrass Management</td>
<td>3</td>
</tr>
<tr>
<td>AGC-102</td>
<td>Computers in Agriculture</td>
<td>2</td>
</tr>
<tr>
<td>AGH-153</td>
<td>Residential Landscape Design</td>
<td>2</td>
</tr>
<tr>
<td>MAT-785</td>
<td>Agricultural Math</td>
<td>2</td>
</tr>
<tr>
<td>AGH-256</td>
<td>Horticulture Chemicals</td>
<td>1</td>
</tr>
<tr>
<td>AGA-283</td>
<td>Pesticide Applications Cert.</td>
<td></td>
</tr>
<tr>
<td>AGH-129</td>
<td>Plant Material III</td>
<td>3</td>
</tr>
<tr>
<td>COM-780</td>
<td>Written Comm. in the Workplace</td>
<td>2</td>
</tr>
<tr>
<td>AGH-850</td>
<td>Occupational Experience</td>
<td>4</td>
</tr>
<tr>
<td>AGH-151</td>
<td>Landscape Design Techniques</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>49</strong></td>
</tr>
</tbody>
</table>

#### Marine and Small Engine Technology

**Diploma**  
**Location:** Emmetsburg Campus

**Required Courses Credits**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSE-143</td>
<td>Small Engines Theory</td>
<td>3</td>
</tr>
<tr>
<td>MSE-146</td>
<td>Small Engines Lab</td>
<td>3</td>
</tr>
<tr>
<td>MSE-153</td>
<td>Fundamentals of Electricity</td>
<td>3</td>
</tr>
<tr>
<td>MSE-152</td>
<td>Drive System Fundamentals</td>
<td>2</td>
</tr>
<tr>
<td>MSE-151</td>
<td>Shop Safety and Procedures</td>
<td>1</td>
</tr>
<tr>
<td>HSC-134</td>
<td>First Aid/CPR</td>
<td>1</td>
</tr>
<tr>
<td>BUS-161</td>
<td>Human Relations</td>
<td>3</td>
</tr>
<tr>
<td>MAT-770</td>
<td>Applied Math</td>
<td>2</td>
</tr>
<tr>
<td>MSE-164</td>
<td>Marine Engines 2/4 Stroke Th</td>
<td>2</td>
</tr>
<tr>
<td>MSE-165</td>
<td>Marine Engines 2/4 Stroke Lab</td>
<td>2</td>
</tr>
<tr>
<td>MSE-169</td>
<td>Marine Drive Sys ts Th &amp; Lab</td>
<td>3</td>
</tr>
<tr>
<td>WEL-334</td>
<td>Trade &amp; Industry Welding</td>
<td>2</td>
</tr>
<tr>
<td>COM-725</td>
<td>Workplace Communications</td>
<td>2</td>
</tr>
<tr>
<td>MSE-158</td>
<td>Snowmobile Systems</td>
<td>3</td>
</tr>
<tr>
<td>MSE-932</td>
<td>Internship</td>
<td>4</td>
</tr>
<tr>
<td>MSE-189</td>
<td>Marine Electrical Sys ts Th &amp; Lab</td>
<td>3</td>
</tr>
<tr>
<td>MSE-173</td>
<td>Marine Fuel Systems</td>
<td>3</td>
</tr>
<tr>
<td>MSE-183</td>
<td>Personal Watercraft Systems</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>44</strong></td>
</tr>
</tbody>
</table>
### Massage Therapy

**Diploma**  
**Location: Spencer Campus**

**Required Courses Credits**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MST-103</td>
<td>Intro to Swedish Massage</td>
<td>3</td>
</tr>
<tr>
<td>HSC-114</td>
<td>Medical Terminology (formerly BE102A)</td>
<td>3</td>
</tr>
<tr>
<td>MST-152</td>
<td>Chair Massage (formerly MT111C)</td>
<td>1</td>
</tr>
<tr>
<td>MST-101</td>
<td>Health and Wellness (formerly MT101C)</td>
<td>1</td>
</tr>
<tr>
<td>B1063</td>
<td>Essentials of Anatomy &amp; Phys (formerly SC240A)</td>
<td>4</td>
</tr>
<tr>
<td>COM-725</td>
<td>Workplace Communications (formerly CM105C)</td>
<td>2</td>
</tr>
<tr>
<td>MST-113</td>
<td>Kinesiology/Anatomy in Clay (formerly MT113C)</td>
<td>3</td>
</tr>
<tr>
<td>MST-123</td>
<td>Sports Massage (formerly MT123C)</td>
<td>3</td>
</tr>
<tr>
<td>MST-140</td>
<td>Spa Services (formerly MT140C)</td>
<td>1</td>
</tr>
<tr>
<td>MST-110</td>
<td>Pathology for Massage Therapy (formerly MT148C)</td>
<td>2</td>
</tr>
<tr>
<td>MST-149</td>
<td>Pregnancy/Infant Massage (formerly MT149C)</td>
<td>1</td>
</tr>
<tr>
<td>MST-141</td>
<td>Geriatric Massage (formerly MT141C)</td>
<td>1</td>
</tr>
<tr>
<td>MST-143</td>
<td>Intermediate Massage (formerly MT143C)</td>
<td>3</td>
</tr>
<tr>
<td>MST-153</td>
<td>Deep Tissue Massage (formerly MT153C)</td>
<td>3</td>
</tr>
<tr>
<td>MST-151</td>
<td>Business – Massage Therapy (formerly MT151C)</td>
<td>1</td>
</tr>
<tr>
<td>BUS-160</td>
<td>Human Relations (formerly BS102A)</td>
<td>2</td>
</tr>
<tr>
<td>MST-810</td>
<td>Clinic (formerly MT161C)</td>
<td>1</td>
</tr>
<tr>
<td>MST-159</td>
<td>Ethics – Massage Therapy (formerly MT199C)</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>37</td>
</tr>
</tbody>
</table>

**Medical Assistant Specialist/Limited Radiology**

**Diploma**  
**Location: Spencer Campus**

**Medical Assistant Required Courses Credits**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSC-114</td>
<td>Medical Terminology (formerly BE102A)</td>
<td>3</td>
</tr>
<tr>
<td>MAP-111</td>
<td>Medical Office Management I (formerly ME144C)</td>
<td>3</td>
</tr>
<tr>
<td>MAP-342</td>
<td>Clinical Assisting I (formerly ME162C)</td>
<td>3</td>
</tr>
<tr>
<td>MAP-402</td>
<td>Medical Law and Ethics (formerly ME169C)</td>
<td>2</td>
</tr>
<tr>
<td>CSC-110</td>
<td>Introduction to Computers (formerly BS106A)</td>
<td>3</td>
</tr>
<tr>
<td>MAP-343</td>
<td>Clinical Assisting II (formerly ME163C)</td>
<td>3</td>
</tr>
<tr>
<td>MAP-515</td>
<td>Pharmacology (formerly ME165C)</td>
<td>3</td>
</tr>
<tr>
<td>MAP-233</td>
<td>Medical Laboratory Procedures (formerly ME160C)</td>
<td>4</td>
</tr>
<tr>
<td>MAP-453</td>
<td>Med Assist Mental Hlt Cnccpts (formerly ME140C)</td>
<td>2</td>
</tr>
<tr>
<td>MAP-330</td>
<td>Career Prep Medical Assistant (formerly ME139C)</td>
<td>1</td>
</tr>
<tr>
<td>MAP-128</td>
<td>Automated Medical Office (formerly ME131C)</td>
<td>2</td>
</tr>
<tr>
<td>MAP-941</td>
<td>Practicum (formerly ME176C)</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>35</td>
</tr>
</tbody>
</table>

**Limited Radiology Required Courses Credits**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSC-114</td>
<td>Medical Terminology (formerly BE102A)</td>
<td>3</td>
</tr>
<tr>
<td>ENG-105</td>
<td>Composition I (formerly EN113A)</td>
<td>3</td>
</tr>
<tr>
<td>BIO-163</td>
<td>Essentials of Anatomy &amp; Phys (formerly SC240A)</td>
<td>4</td>
</tr>
<tr>
<td>CSC-110</td>
<td>Introduction to Computers (formerly BS106A)</td>
<td>3</td>
</tr>
<tr>
<td>SPC-101</td>
<td>Fund of Oral Communication (formerly SP103A)</td>
<td>3</td>
</tr>
<tr>
<td>PSY-111</td>
<td>Intro to Psychology (formerly PY113A)</td>
<td>3</td>
</tr>
<tr>
<td>MAT-110</td>
<td>Math for Liberal Arts (formerly MA103A)</td>
<td>3</td>
</tr>
<tr>
<td>MAP-253</td>
<td>Limited Radiology I (formerly ME231C)</td>
<td>3</td>
</tr>
<tr>
<td>MAP-453</td>
<td>Med Assist Mental Hlt Cnccpts (formerly ME140C)</td>
<td>2</td>
</tr>
<tr>
<td>MAP-254</td>
<td>Limited Radiology II (formerly ME224C)</td>
<td>4</td>
</tr>
<tr>
<td>SOC-110</td>
<td>Introduction to Sociology (formerly SS113A)</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>37</td>
</tr>
</tbody>
</table>

### Motorcycle and Small Engine Technology

**Diploma**  
**Location: Emmetsburg Campus**

**Required Courses Credits**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSE-143</td>
<td>Small Engines Theory (formerly SM143C)</td>
<td>3</td>
</tr>
<tr>
<td>MSE-146</td>
<td>Small Engines Lab (formerly SM146C)</td>
<td>3</td>
</tr>
<tr>
<td>MSE-153</td>
<td>Fundamentals of Electricity (formerly SM153C)</td>
<td>3</td>
</tr>
<tr>
<td>MSE-152</td>
<td>Drive System Fundamentals (formerly SM152C)</td>
<td>2</td>
</tr>
<tr>
<td>BUS-161</td>
<td>Human Relations (formerly BS102A)</td>
<td>3</td>
</tr>
<tr>
<td>MAT-770</td>
<td>Applied Math (formerly TI102C)</td>
<td>2</td>
</tr>
<tr>
<td>MSE-151</td>
<td>Shop Safety and Procedures (formerly SM151C)</td>
<td>1</td>
</tr>
<tr>
<td>HSC-134</td>
<td>First Aid/CPR (formerly TI114C)</td>
<td>1</td>
</tr>
<tr>
<td>MOT-128</td>
<td>Motorcycle Engines 2/4 Stroke (formerly MM126C)</td>
<td>2</td>
</tr>
<tr>
<td>MOT-129</td>
<td>Motorcycle Eng 2/4 Stroke Lab (formerly MM129C)</td>
<td>2</td>
</tr>
<tr>
<td>MOT-146</td>
<td>Motorcycle Ignit &amp; Elect Sys (formerly MM146C)</td>
<td>3</td>
</tr>
<tr>
<td>MOT-270</td>
<td>Introduction to Diesel</td>
<td>2</td>
</tr>
<tr>
<td>MOT-143</td>
<td>Moto Drive Sys, Chas &amp; Susp (formerly MM134C)</td>
<td>3</td>
</tr>
<tr>
<td>WEL-334</td>
<td>Trade &amp; Industry Welding (formerly TI103C)</td>
<td>2</td>
</tr>
<tr>
<td>COM-725</td>
<td>Workplace Communications (formerly CM105C)</td>
<td>2</td>
</tr>
<tr>
<td>MOT-139</td>
<td>Motorcycle Fuel Systems (formerly MM139C)</td>
<td>3</td>
</tr>
<tr>
<td>MSE-183</td>
<td>Personal Watercraft Systems (formerly SM183C)</td>
<td>3</td>
</tr>
<tr>
<td>MOT-910</td>
<td>Internship (formerly MM127C)</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>44</td>
</tr>
</tbody>
</table>

### Office Specialist

**Diploma**  
**Location: Emmetsburg Campus**

**Required Courses Credits**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC-111</td>
<td>Intro to Accounting (formerly BA103A)</td>
<td>3</td>
</tr>
<tr>
<td>ACC-161</td>
<td>Payroll Accounting (formerly BA116A)</td>
<td>3</td>
</tr>
<tr>
<td>ACC-310</td>
<td>Computer Accounting (formerly BA125A)</td>
<td>2</td>
</tr>
<tr>
<td>ADM-254</td>
<td>Business Professionalism (formerly BE103A)</td>
<td>1</td>
</tr>
<tr>
<td>ADM-255</td>
<td>Business Professionalism II (formerly BE104A)</td>
<td>1</td>
</tr>
<tr>
<td>ADM-132</td>
<td>Business Math &amp; Calculators (formerly BE111A)</td>
<td>2</td>
</tr>
<tr>
<td>ADM-116</td>
<td>Keyboarding II (formerly BE113A)</td>
<td>3</td>
</tr>
<tr>
<td>ADM-336</td>
<td>Occupational Experience (formerly BE115A)</td>
<td>5</td>
</tr>
<tr>
<td>ADM-162</td>
<td>Office Procedures (formerly BE118A)</td>
<td>3</td>
</tr>
<tr>
<td>BCA-134</td>
<td>Word Processing (formerly BE119A)</td>
<td>3</td>
</tr>
<tr>
<td>BUS-160</td>
<td>Human Relations (formerly BS102A)</td>
<td>2</td>
</tr>
<tr>
<td>BCA-185</td>
<td>Beginning Web Page Dev. (formerly BS105A)</td>
<td>3</td>
</tr>
<tr>
<td>CSC-110</td>
<td>Introduction to Computers (formerly BS106A)</td>
<td>3</td>
</tr>
<tr>
<td>ENG-105</td>
<td>Composition I (formerly EN113A)</td>
<td>3</td>
</tr>
<tr>
<td>SPC-101</td>
<td>Fund of Oral Communication (formerly SP103A)</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>40</td>
</tr>
</tbody>
</table>

### Paraeducation

**Diploma**  
**Location: Estherville Campus**

**Required Courses Credits**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG-105</td>
<td>Composition I (formerly EN113A)</td>
<td>3</td>
</tr>
<tr>
<td>DSV-135</td>
<td>Assessment and Instruction (formerly HD116A)</td>
<td>3</td>
</tr>
<tr>
<td>DSV-155</td>
<td>Services and Vocational Planning (formerly HD214A)</td>
<td>4</td>
</tr>
<tr>
<td>SPC-101</td>
<td>Fund of Oral Communication (formerly SP103A)</td>
<td>3</td>
</tr>
<tr>
<td>DSV-160</td>
<td>Counseling Skills (formerly HD224A)</td>
<td>4</td>
</tr>
<tr>
<td>PSY-111</td>
<td>Introduction to Psychology (formerly PY113A)</td>
<td>3</td>
</tr>
<tr>
<td>HSV-162</td>
<td>Exceptional Persons (formerly ED126A)</td>
<td>3</td>
</tr>
<tr>
<td>Approved Science Elective</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Approved Humanities Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Approved Social Science Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Approved Math Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>36</td>
</tr>
</tbody>
</table>
### Parts Sales and Inventory Control

**Diploma**  
*Location: Emmetsburg Campus*

**Required Courses Credits**
- ACC-111 Intro to Accounting (formerly BA103A) ........................................................................ 3
- MGT-131 Principles of Supervision (formerly BS217A) ................................................................. 4
- BUS-932 Practicum (formerly BS205A) ...................................................................................... 5
- BUS-161 Human Relations (formerly BS104A) ........................................................................... 3
- CSC-110 Introduction to Computers (formerly BS106A) .............................................................. 3
- MKT-140 Principles of Selling (formerly BS143A) ....................................................................... 3
- MKT-150 Principles of Advertising (formerly BS243A) ............................................................... 3
- COM-725 Workplace Communications (formerly CM108C) ..................................................... 2
- PAR-113 Parts Catalog and Lab (formerly PT113C) ...................................................................... 3
- PAR-123 Parts System and Lab (formerly PT123C) ................................................................... 4
- PAR-124 Inventory Control and Lab (formerly PT124C) ............................................................ 3
- MAT-772 Applied Math (formerly TI124C) ............................................................................... 3

**Total** ........................................................................................................................................ 38

### Pharmacy Technology

**Diploma**  
*Location: Spencer Campus*

**Required Courses Credits**
- BIO-163 Essentials of Anatomy & Phys (formerly SC240A) ...................................................... 4
- PHR-107 Pharmacy Tech I (formerly PM107C) ........................................................................... 7
- CSC-110 Introduction to Computers (formerly BS106A) .............................................................. 3
- PHR-117 Pharmacy Tech II (formerly BS107C) ......................................................................... 7
- SPC-101 Fund of Oral Communication (formerly SP103A) ......................................................... 3
- CHM-110 College Chemistry I (formerly SC173A) .................................................................... 4
- ENG-105 Composition I (formerly EN113A) .......................................................................... 3
- PHR-941 Practicum (formerly PM133C) .................................................................................. 3
- PHR-121 Pharmacy Technician Seminar (formerly PM121C) .................................................. 1
- BUS-161 Human Relations (formerly BS104A) ....................................................................... 3

**Total** ........................................................................................................................................ 38

### Photography

**Diploma**  
*Location: Estherville Campus*

**Required Courses Credits**
- JOU-171 Introduction to Photography (formerly JR113A) ......................................................... 3
- JOU-173 Digital Photography (formerly JR123A) .................................................................... 3
- ENG-105 Composition I (formerly EN113A) .......................................................................... 3
- SPC-101 Fund of Oral Communication (formerly SP103A) ......................................................... 3
- BUS-161 Human Relations (formerly BS104A) ....................................................................... 3
- JOU-176 News & Forensic Photography (formerly JR261A) .................................................... 3
- ART-286 Photography: Portraitur (formerly JR126A) ................................................................. 3
- GRA-140 Digital Imaging (formerly AR163A) ........................................................................ 3
- MGT-110 Small Business Management (formerly BS213A) .................................................... 3
- MKT-150 Principles of Advertising (formerly BS243A) OR MKT-140 Principles of Selling (formerly BS143A) ........................................................................................................ 3
- JOU-941 Practicum (formerly JR234A) .................................................................................. 2
- Approved Science Elective ........................................................................................................ 4

**Total** ....................................................................................................................................... 36

### Practical Nursing

**Diploma**  
*Location: Emmetsburg Campus (Day, Full-time Program)*  
*Algona & Spirit Lake Campuses (Evening/Weekend, Part-time Program)*

Admission to the Practical Nursing program follows the guidelines outlined in the Prospective Nursing Student Bulletin and/or Nursing Program Student Handbook. All coursework must be completed with a grade of “C” or higher. Graduates are eligible to take the PN NCLEX licensure exam at the end of the corresponding program. This program is fully accredited by the Iowa Board of Nursing and the Iowa Department of Education.

**Prerequisite**
Two semesters of high school chemistry with a grade of “C” or higher or a four credit college chemistry (College Chemistry I and Lab) with a grade of “C” or higher is required prior to entering the PN program.

**Required Courses Credits**
- HSC-186 Human Growth and Dev. (formerly HL112A) OR PSY-121 Developmental Psychology (formerly PY223A) ................................................................. 3
- HSC-163 Nutrition (formerly HL118A) OR BIO-151 Nutrition ............................................. 3
- BIO-168 Anatomy and Physiology I and Lab ......................................................................... 4
- PNN-141 Fundamentals of Nursing Skills Lab (formerly NU154C) ......................................... 4
- PNN-722 Fundamentals of Nursing Cl (formerly NU198C) .................................................. 4
- PNN-101 Math for Health Professionals (formerly NU313C) ............................................. 1
- BIO-173 Anatomy and Physiology II and Lab ........................................................................ 4
- PNN-421 Maternal and Newborn Nursing (formerly NU112C) ........................................... 2
- PNN-631 Adult and Child Health Nursing (formerly NU159C) ........................................... 9
- PNN-632 Nursing Care Through the Lifespan Cl (formerly NU163C) ................................. 3
- ENG-105 Composition I (formerly EN113A) ....................................................................... 3
- * PNN-345 Dimensions of Practical Nursing (formerly NU132C) ....................................... 2
- * PNN-721 Dimensions of Practical Nursing Cl (formerly NU173C) ................................. 3

**Total** ................................................................................................................................... 43

*Students entering the Associate Degree Nursing program meet requirements with different courses.

### Sales and Marketing

**Diploma**  
*Location: Emmetsburg Campus*

**Required Courses Credits**
- ACC-111 Intro to Accounting (formerly BA103A) ................................................................. 3
- MKT-290 Professionalism: Dex/DECA (formerly BS101A) ..................................................... 1
- MKT-291 Professionalism II: Dex/DECA (formerly BS102A) .............................................. 1
- BUS-106 Employment Strategy (formerly BS112A) ............................................................... 2
- MKT-155 Visual Merchandising (formerly BS114A) .............................................................. 4
- MKT-938 On-the-job Training (formerly BS126A) ............................................................... 2
- MKT-131 Principles of Supervision (formerly BS217A) .......................................................... 4
- BUS-932 Practicum (formerly BS205A) ................................................................................... 5
- BUS-161 Human Relations (formerly BS104A) .................................................................. 3
- MKT-140 Principles of Selling (formerly BS143A) ................................................................. 3
- MKT-142 Consumer Behavior (formerly BS293A) ............................................................... 3
- MKT-110 Principles of Marketing (formerly BS233A) ........................................................... 3
- MKT-150 Principles of Advertising (formerly BS243A) ......................................................... 3
- ENG-105 Composition I (formerly EN113A) ....................................................................... 3

**Total** ................................................................................................................................... 40
## Vocational Programs

### Secretarial Specialist

**Diploma**  
*Location: Emmetsburg Campus*

<table>
<thead>
<tr>
<th>Required Courses Credits</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC-111 Intro to Accounting (formerly BA103A)</td>
<td>3</td>
</tr>
<tr>
<td>ACC-161 Payroll Accounting (formerly BA118A)</td>
<td>3</td>
</tr>
<tr>
<td>ACC-310 Computer Accounting (formerly BE125A)</td>
<td>2</td>
</tr>
<tr>
<td>ADM-254 Business Professionalism (formerly BE103A)</td>
<td>1</td>
</tr>
<tr>
<td>ADM-255 Business Professionalism II (formerly BE104A)</td>
<td>1</td>
</tr>
<tr>
<td>ADM-132 Business Math &amp; Calculators (formerly BE119A)</td>
<td>3</td>
</tr>
<tr>
<td>ADM-116 Keyboarding II (formerly BE113A)</td>
<td>3</td>
</tr>
<tr>
<td>ADM-162 Office Procedures (formerly BE118A)</td>
<td>3</td>
</tr>
<tr>
<td>BCA-134 Word Processing (formerly BE119A)</td>
<td>3</td>
</tr>
<tr>
<td>BUS-160 Human Relations (formerly BS102A)</td>
<td>2</td>
</tr>
<tr>
<td>GRA-234 Dreamweaver Level 1 (formerly AR116A)</td>
<td>3</td>
</tr>
<tr>
<td>ENG-105 Composition I (formerly EN113A)</td>
<td>3</td>
</tr>
<tr>
<td>SPC-101 Fund of Oral Communication (formerly SP103A)</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
</tr>
</tbody>
</table>

### Surgical Technology

**Diploma**  
*Location: Spencer Campus*

<table>
<thead>
<tr>
<th>Required Courses Credits</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO-163 Essentials of Anatomy and Phys (formerly SC240A)</td>
<td>4</td>
</tr>
<tr>
<td>SUR-430 Microbiology - Surgical Tech (formerly ST112C)</td>
<td>2</td>
</tr>
<tr>
<td>SUR-121 Surgical Techniques I (formerly ST116C)</td>
<td>6</td>
</tr>
<tr>
<td>SUR-122 Intro to Surgical Technology (formerly ST118C)</td>
<td>4</td>
</tr>
<tr>
<td>SUR-123 Patient Care Concepts (formerly ST122C)</td>
<td>2</td>
</tr>
<tr>
<td>HSC-114 Medical Terminology (formerly BE102A)</td>
<td>3</td>
</tr>
<tr>
<td>SUR-222 Surgical Techniques II (formerly ST124C)</td>
<td>4</td>
</tr>
<tr>
<td>SUR-223 Surgical Procedures (formerly ST126C)</td>
<td>6</td>
</tr>
<tr>
<td>SUR-420 Pharmacology for Surgical Tech (formerly ST132C)</td>
<td>2</td>
</tr>
<tr>
<td>ADM-220 Career Development Skills (formerly BE128A)</td>
<td>1</td>
</tr>
<tr>
<td>SUR-227 Surgical Procedures Lab (formerly ST148C)</td>
<td>2</td>
</tr>
<tr>
<td>SUR-440 Biomedical Sciences - Surg Tech (formerly ST140C)</td>
<td>2</td>
</tr>
<tr>
<td>SUR-520 Surgical Technology Practicum I (formerly ST110C)</td>
<td>2</td>
</tr>
<tr>
<td>ENG-105 Composition I (formerly EN113A)</td>
<td>3</td>
</tr>
<tr>
<td>SUR-519 Surgical Technology Practicum (formerly ST144C)</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>45</td>
</tr>
</tbody>
</table>

### Web Development and Design

**Diploma**  
*Location: Estherville Campus*

<table>
<thead>
<tr>
<th>Required Courses Credits</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS-204 Web Programming I (formerly CS143A)</td>
<td>3</td>
</tr>
<tr>
<td>GRA-140 Digital Imaging (formerly AR153A)</td>
<td>3</td>
</tr>
<tr>
<td>JOU-173 Digital Photography (formerly JR123A)</td>
<td>3</td>
</tr>
<tr>
<td>GRA-234 Dreamweaver Level 1 (formerly BG116A)</td>
<td>3</td>
</tr>
<tr>
<td>MKT-150 Principles of Advertising (formerly BS243A)</td>
<td>3</td>
</tr>
<tr>
<td>GRA-121 Digital Drawing (formerly AR133A)</td>
<td>3</td>
</tr>
<tr>
<td>GRA-162 Web Page Graphics (formerly AR106A)</td>
<td>3</td>
</tr>
<tr>
<td>GRA-235 Dreamweaver Level 2 (formerly BG118A)</td>
<td>3</td>
</tr>
<tr>
<td>ENG-105 Composition I (formerly EN113A)</td>
<td>3</td>
</tr>
<tr>
<td>MAT-110 Math for Liberal Arts (formerly MA103A)</td>
<td>3</td>
</tr>
<tr>
<td>SPC-101 Fund of Oral Communication (formerly SP103A)</td>
<td>3</td>
</tr>
<tr>
<td>GRA-932 Web Design Internship (formerly BG204A)</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>37</td>
</tr>
</tbody>
</table>

### Welding

**Diploma**  
*Location: Emmetsburg Campus*

<table>
<thead>
<tr>
<th>Required Courses Credits</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>COM-725 Workplace Communications (formerly CM105C)</td>
<td>2</td>
</tr>
<tr>
<td>MAT-770 Applied Math (formerly TI102C)</td>
<td>2</td>
</tr>
<tr>
<td>BUS-161 Human Relations (formerly BS104A)</td>
<td>3</td>
</tr>
<tr>
<td>WEL-121 Oxy Fuel Welding and Cutting (formerly WE111C)</td>
<td>4</td>
</tr>
<tr>
<td>WEL-160 Arc Welding I (SMAW) (formerly WE112C)</td>
<td>5</td>
</tr>
<tr>
<td>WEL-111 Welding Blueprint Reading (formerly WE113C)</td>
<td>3</td>
</tr>
<tr>
<td>WEL-158 Structural Welding (formerly WE114C)</td>
<td>4</td>
</tr>
<tr>
<td>WEL-128 Brazing/Soldering (formerly WE115C)</td>
<td>2</td>
</tr>
<tr>
<td>WEL-180 GMAW/GTAW (formerly WE121C)</td>
<td>2</td>
</tr>
<tr>
<td>WEL-183 GMAW/GTAW (formerly WE122C)</td>
<td>3</td>
</tr>
<tr>
<td>WEL-310 Pipe Welding (formerly WE123C)</td>
<td>5</td>
</tr>
<tr>
<td>WEL-179 Special Processes/Procedures (formerly WE124C)</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>38</td>
</tr>
</tbody>
</table>

### Wind Energy

**Diploma**  
*Location: Estherville Campus*

<table>
<thead>
<tr>
<th>Required Courses Credits</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>WTT-114 Field Training and Project Operations</td>
<td>5</td>
</tr>
<tr>
<td>WTT-113 Direct Current Electrical Theory</td>
<td>4</td>
</tr>
<tr>
<td>WTT-123 Alternating Current Electrical Theory I</td>
<td>4</td>
</tr>
<tr>
<td>WTT-103 Introduction to Wind Energy</td>
<td>3</td>
</tr>
<tr>
<td>CSC-110 Intro to Computers</td>
<td>3</td>
</tr>
<tr>
<td>MAT-102 Intermediate Algebra</td>
<td>3</td>
</tr>
<tr>
<td>BUS-161 Human Relations</td>
<td>3</td>
</tr>
<tr>
<td>WTT-244 Alternating Current Electrical Theory II</td>
<td>4</td>
</tr>
<tr>
<td>WTT-133 Wind Turbine Mechanical Systems</td>
<td>3</td>
</tr>
<tr>
<td>WTT-126 Basic Hydraulics</td>
<td>3</td>
</tr>
<tr>
<td>WTT-134 Electric Motors and Motor Controls Fund</td>
<td>4</td>
</tr>
<tr>
<td>WTT-201 Wind Turbine Site Construction &amp; Locations</td>
<td>1</td>
</tr>
<tr>
<td>WTT-932 Wind Turbine Internship</td>
<td>5</td>
</tr>
<tr>
<td>BUS-121 Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
</tr>
</tbody>
</table>
The Iowa community colleges have a common course numbering system for all credit courses offered by Iowa community colleges. The numbering system facilitates transfer and articulation processes for Iowa community college students. 

**Course Prefixes**

<table>
<thead>
<tr>
<th>Discipline Prefix of Program or Subject</th>
<th>Course Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>000-099</td>
<td>Developmental Courses</td>
</tr>
<tr>
<td>100-899</td>
<td>Courses intended to meet specific requirements for certificates, diplomas, and degrees in career and technical and transfer programs</td>
</tr>
<tr>
<td>900-999</td>
<td>Generic focus courses such as special topics, OJT, internships</td>
</tr>
</tbody>
</table>

**Key to Course Prefixes**

<table>
<thead>
<tr>
<th>A B C</th>
<th>1 2 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC</td>
<td>DSV</td>
</tr>
<tr>
<td>ADM</td>
<td>ECE</td>
</tr>
<tr>
<td>ADN</td>
<td>ECN</td>
</tr>
<tr>
<td>AGA</td>
<td>EDU</td>
</tr>
<tr>
<td>AGB</td>
<td>EGT</td>
</tr>
<tr>
<td>AGC</td>
<td>EMS</td>
</tr>
<tr>
<td>AGH</td>
<td>ENG</td>
</tr>
<tr>
<td>AGM</td>
<td>ENV</td>
</tr>
<tr>
<td>AGP</td>
<td>EVS</td>
</tr>
<tr>
<td>AGS</td>
<td>FIN</td>
</tr>
<tr>
<td>ART</td>
<td>FLS</td>
</tr>
<tr>
<td>ANT</td>
<td>GEO</td>
</tr>
<tr>
<td>ASL</td>
<td>GRA</td>
</tr>
<tr>
<td>AUT</td>
<td>HCA</td>
</tr>
<tr>
<td>AVI</td>
<td>HCM</td>
</tr>
<tr>
<td>BCA</td>
<td>HIS</td>
</tr>
<tr>
<td>BIO</td>
<td>HIT</td>
</tr>
<tr>
<td>BPT</td>
<td>HSC</td>
</tr>
<tr>
<td>BUS</td>
<td>HSC</td>
</tr>
<tr>
<td>CAD</td>
<td>HSV</td>
</tr>
<tr>
<td>CHM</td>
<td>JOU</td>
</tr>
<tr>
<td>CHR</td>
<td>LGL</td>
</tr>
<tr>
<td>CIS</td>
<td>LIT</td>
</tr>
<tr>
<td>CLS</td>
<td>MAP</td>
</tr>
<tr>
<td>COM</td>
<td>MAT</td>
</tr>
<tr>
<td>CON</td>
<td>MGT</td>
</tr>
<tr>
<td>CRJ</td>
<td>MGT</td>
</tr>
<tr>
<td>CRR</td>
<td>MKT</td>
</tr>
<tr>
<td>CSC</td>
<td>MMS</td>
</tr>
<tr>
<td>DRA</td>
<td>MOT</td>
</tr>
<tr>
<td>DRA</td>
<td>MSE</td>
</tr>
<tr>
<td>DRA</td>
<td>MST</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1 2 3</th>
<th>000-099</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC</td>
<td>DSV</td>
</tr>
<tr>
<td>ADM</td>
<td>ECE</td>
</tr>
<tr>
<td>ADN</td>
<td>ECN</td>
</tr>
<tr>
<td>AGA</td>
<td>EDU</td>
</tr>
<tr>
<td>AGB</td>
<td>EGT</td>
</tr>
<tr>
<td>AGC</td>
<td>EMS</td>
</tr>
<tr>
<td>AGH</td>
<td>ENG</td>
</tr>
<tr>
<td>AGM</td>
<td>ENV</td>
</tr>
<tr>
<td>AGP</td>
<td>EVS</td>
</tr>
<tr>
<td>AGS</td>
<td>FIN</td>
</tr>
<tr>
<td>ART</td>
<td>FLS</td>
</tr>
<tr>
<td>ANT</td>
<td>GEO</td>
</tr>
<tr>
<td>ASL</td>
<td>GRA</td>
</tr>
<tr>
<td>AUT</td>
<td>HCA</td>
</tr>
<tr>
<td>AVI</td>
<td>HCM</td>
</tr>
<tr>
<td>BCA</td>
<td>HIS</td>
</tr>
<tr>
<td>BIO</td>
<td>HIT</td>
</tr>
<tr>
<td>BPT</td>
<td>HSC</td>
</tr>
<tr>
<td>BUS</td>
<td>HSV</td>
</tr>
<tr>
<td>CAD</td>
<td>JOU</td>
</tr>
<tr>
<td>CHM</td>
<td>LGL</td>
</tr>
<tr>
<td>CHR</td>
<td>LIT</td>
</tr>
<tr>
<td>CIS</td>
<td>MAP</td>
</tr>
<tr>
<td>CLS</td>
<td>MAT</td>
</tr>
<tr>
<td>COM</td>
<td>MGT</td>
</tr>
<tr>
<td>CON</td>
<td>MKT</td>
</tr>
<tr>
<td>CRJ</td>
<td>MMS</td>
</tr>
<tr>
<td>CRR</td>
<td>MOT</td>
</tr>
<tr>
<td>CSC</td>
<td>MSE</td>
</tr>
<tr>
<td>DRA</td>
<td>MST</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1 2 3</th>
<th>100-899</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC</td>
<td>DSV</td>
</tr>
<tr>
<td>ADM</td>
<td>ECE</td>
</tr>
<tr>
<td>ADN</td>
<td>ECN</td>
</tr>
<tr>
<td>AGA</td>
<td>EDU</td>
</tr>
<tr>
<td>AGB</td>
<td>EG</td>
</tr>
<tr>
<td>AGC</td>
<td>EM</td>
</tr>
<tr>
<td>AGH</td>
<td>EN</td>
</tr>
<tr>
<td>AGM</td>
<td>EV</td>
</tr>
<tr>
<td>AGP</td>
<td>EV</td>
</tr>
<tr>
<td>AGS</td>
<td>FIA</td>
</tr>
<tr>
<td>ART</td>
<td>FL</td>
</tr>
<tr>
<td>ANT</td>
<td>GEO</td>
</tr>
<tr>
<td>ASL</td>
<td>GRA</td>
</tr>
<tr>
<td>AUT</td>
<td>HCA</td>
</tr>
<tr>
<td>AVI</td>
<td>HCM</td>
</tr>
<tr>
<td>BCA</td>
<td>HIS</td>
</tr>
<tr>
<td>BIO</td>
<td>HIT</td>
</tr>
<tr>
<td>BPT</td>
<td>HSC</td>
</tr>
<tr>
<td>BUS</td>
<td>HSV</td>
</tr>
<tr>
<td>CAD</td>
<td>JOU</td>
</tr>
<tr>
<td>CHM</td>
<td>LGL</td>
</tr>
<tr>
<td>CHR</td>
<td>LIT</td>
</tr>
<tr>
<td>CIS</td>
<td>MAP</td>
</tr>
<tr>
<td>CLS</td>
<td>MAT</td>
</tr>
<tr>
<td>COM</td>
<td>MGT</td>
</tr>
<tr>
<td>CON</td>
<td>MKT</td>
</tr>
<tr>
<td>CRJ</td>
<td>MMS</td>
</tr>
<tr>
<td>CRR</td>
<td>MOT</td>
</tr>
<tr>
<td>CSC</td>
<td>MSE</td>
</tr>
<tr>
<td>DRA</td>
<td>MST</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1 2 3</th>
<th>900-999</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC</td>
<td>DSV</td>
</tr>
<tr>
<td>ADM</td>
<td>ECE</td>
</tr>
<tr>
<td>ADN</td>
<td>ECN</td>
</tr>
<tr>
<td>AGA</td>
<td>EDU</td>
</tr>
<tr>
<td>AGB</td>
<td>EGT</td>
</tr>
<tr>
<td>AGC</td>
<td>EMS</td>
</tr>
<tr>
<td>AGH</td>
<td>ENG</td>
</tr>
<tr>
<td>AGM</td>
<td>ENV</td>
</tr>
<tr>
<td>AGP</td>
<td>EVS</td>
</tr>
<tr>
<td>AGS</td>
<td>FIN</td>
</tr>
<tr>
<td>ART</td>
<td>FLS</td>
</tr>
<tr>
<td>ANT</td>
<td>GEO</td>
</tr>
<tr>
<td>ASL</td>
<td>GRA</td>
</tr>
<tr>
<td>AUT</td>
<td>HCA</td>
</tr>
<tr>
<td>AVI</td>
<td>HCM</td>
</tr>
<tr>
<td>BCA</td>
<td>HIS</td>
</tr>
<tr>
<td>BIO</td>
<td>HIT</td>
</tr>
<tr>
<td>BPT</td>
<td>HSC</td>
</tr>
<tr>
<td>BUS</td>
<td>HSV</td>
</tr>
<tr>
<td>CAD</td>
<td>JOU</td>
</tr>
<tr>
<td>CHM</td>
<td>LGL</td>
</tr>
<tr>
<td>CHR</td>
<td>LIT</td>
</tr>
<tr>
<td>CIS</td>
<td>MAP</td>
</tr>
<tr>
<td>CLS</td>
<td>MAT</td>
</tr>
<tr>
<td>COM</td>
<td>MGT</td>
</tr>
<tr>
<td>CON</td>
<td>MKT</td>
</tr>
<tr>
<td>CRJ</td>
<td>MMS</td>
</tr>
<tr>
<td>CRR</td>
<td>MOT</td>
</tr>
<tr>
<td>CSC</td>
<td>MSE</td>
</tr>
<tr>
<td>DRA</td>
<td>MST</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1 2 3</th>
<th>100-899</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC</td>
<td>DSV</td>
</tr>
<tr>
<td>ADM</td>
<td>ECE</td>
</tr>
<tr>
<td>ADN</td>
<td>ECN</td>
</tr>
<tr>
<td>AGA</td>
<td>EDU</td>
</tr>
<tr>
<td>AGB</td>
<td>EGT</td>
</tr>
<tr>
<td>AGC</td>
<td>EMS</td>
</tr>
<tr>
<td>AGH</td>
<td>ENG</td>
</tr>
<tr>
<td>AGM</td>
<td>ENV</td>
</tr>
<tr>
<td>AGP</td>
<td>EVS</td>
</tr>
<tr>
<td>AGS</td>
<td>FIN</td>
</tr>
<tr>
<td>ART</td>
<td>FLS</td>
</tr>
<tr>
<td>ANT</td>
<td>GEO</td>
</tr>
<tr>
<td>ASL</td>
<td>GRA</td>
</tr>
<tr>
<td>AUT</td>
<td>HCA</td>
</tr>
<tr>
<td>AVI</td>
<td>HCM</td>
</tr>
<tr>
<td>BCA</td>
<td>HIS</td>
</tr>
<tr>
<td>BIO</td>
<td>HIT</td>
</tr>
<tr>
<td>BPT</td>
<td>HSC</td>
</tr>
<tr>
<td>BUS</td>
<td>HSV</td>
</tr>
<tr>
<td>CAD</td>
<td>JOU</td>
</tr>
<tr>
<td>CHM</td>
<td>LGL</td>
</tr>
<tr>
<td>CHR</td>
<td>LIT</td>
</tr>
<tr>
<td>CIS</td>
<td>MAP</td>
</tr>
<tr>
<td>CLS</td>
<td>MAT</td>
</tr>
<tr>
<td>COM</td>
<td>MGT</td>
</tr>
<tr>
<td>CON</td>
<td>MKT</td>
</tr>
<tr>
<td>CRJ</td>
<td>MMS</td>
</tr>
<tr>
<td>CRR</td>
<td>MOT</td>
</tr>
<tr>
<td>CSC</td>
<td>MSE</td>
</tr>
<tr>
<td>DRA</td>
<td>MST</td>
</tr>
</tbody>
</table>
Course Descriptions

Accounting

ACC-111 Intro to Accounting, 3 cr.
Introduces the basic principles of accounting and the recording of simple business transactions using the double entry system. Includes the accounting procedures of journalizing transactions, posting to the ledger, making a trial balance, creating receipt and disbursement of cash. (Formerly BA-103A - Basic Accounting)

ACC-131 Principles of Accounting I, 4 cr.
Accounting methods, principles and terminology needed in the preparation and understanding of the financial statements of a business enterprise. Includes a study of partnership accounting. (Formerly BA-114A)

ACC-132 Principles of Accounting II, 4 cr.
Continuation of BA114A, covering corporate accounting, long-term debts, financial analysis, managerial accounting and budgeting concepts. Prerequisite: BA114A. (Formerly BA-124A)

ACC-161 Payroll Accounting, 3 cr.
A study of payroll records and payroll taxes imposed by state and federal agencies. (Formerly BA-116A)

ACC-211 Cost Accounting, 3 cr.
Develops an understanding of accounting methods for manufacturing and service enterprises including analysis techniques for management. Prerequisite: ACC-132 (Formerly BA-243A)

ACC-231 Intermediate Accounting I, 4 cr.
Reviews accounting procedures and reporting processes, including an in-depth analysis of generally applied accounting principles. Topics include the income statement, balance sheet, revenue recognition, cash and marketable securities, and notes and accounts receivable. Prerequisite: ACC-132 (Formerly BA-213A)

ACC-232 Intermediate Accounting II, 4 cr.
Continuation of BA213A, including in-depth analysis of generally accepted accounting principles pertaining to liabilities, equities, revenues and expenses. Prerequisite: ACC-231 (Formerly BA-223A)

ACC-261 Income Tax Accounting, 3 cr.
Introduces the general theory and procedures pertaining to state and federal taxation. Studies application of laws as they pertain to income of individuals and sole proprietorships, gifts, estates and Social Security. (Formerly BA-253A)

ACC-310 Computer Accounting, 2 cr.
Provides students with a basic understanding of the accounting cycle on microcomputers. Topics include ledgers, accounts receivable and payable, payroll, inventory and depreciation. An integrated accounting software package is introduced. (Formerly BA-125A)

ACC-311 Computer Accounting, 3 cr.
Studies payroll records and payroll taxes imposed by state and federal agencies. The course will focus on computerized accounting records, including general ledger, accounts receivable, accounts payable, depreciation and payroll systems. (Formerly BA-126A)

ACC-929 Individual Projects, 2 cr.
Provides experience in the application of accounting principles to a simulated retail business. (Formerly BA-114C - Accounting Projects)

ACC-941 Practicum, 3 cr.
On-the-job training experience provides the student with the opportunity to apply accounting concepts and procedures in a work situation and the opportunity to develop proper work attitudes. (Formerly BA-233A - Accounting Practicum)

Administrative Assistant

ADM-106 Intro to Keyboarding, 2 cr.
Teaches the basic computer keyboard using the touch method to develop speed and accuracy. (Formerly BE-101A)

ADM-116 Keyboarding II, 3 cr.
Tabulations, letters, reports and other production work for students with previous instruction in keyboarding, but with insufficient skill to qualify for the next course. (Formerly BE-113A Keyboarding Applications)

ADM-132 Bus Math & Calculators, 2 cr.
Provides skills and competencies in basic mathematical functions and in the operation of electronic calculators. Emphasis is on solving business problems and in developing speed and accuracy. (Formerly BE-111A Calculating Mach)

ADM-142 Desktop Publishing, 3 cr.
Using WordPerfect or other word processing software on microcomputers to learn creating, retrieving, saving, editing, sorting, and printing documents. Various features of the program such as merging, macros, sorting, columns, tables, graphics and desktop publishing are covered. (formerly BE-110A)

ADM-162 Office Procedures, 3 cr.
Includes modern office skills and technologies, including word processing, automation, records management, reprographics, communication services, time management and methods of handling stress, meeting and travel arrangements and career advancement. (Formerly BE-118A)

ADM-220 Career Development Skills, 1 cr.
Teaches necessary attitudes and behaviors needed in the business world. (Formerly BE-128A)

ADM-254 Business Professionalism, 0-1 cr.
Introduction to Business Professionals of America activities, which includes preparation for state and national competitive events, leadership and professional development. (Formerly BE-103A BE-108A)

ADM-255 Business Professionalism II, 0-1 cr.
Business Professionals of America prepares the student for their chosen profession by assisting them in their leadership and professional development for the workplace. Continuation of ADM-254. (formerly BE-104A/BE-109A)

ADM-354 Business Professionalism III, 0-1 cr.
Continuation of ADM-255. (Formerly BE-204A/BE-208A)
Course Descriptions

ADM-355  Business Professionalism IV, 0-1 cr.
Continuation of ADM-354. (Formerly BE-209A/BE-205A)

ADM-936  Occupational Experience, 5 cr.
Apprenticeship in office systems. Students work as regular employees in offices supervised by staff members. This work experience is introductory to meet the student's abilities and career objectives. (Formerly BE-115A - Office OJT I)

ADM-941  Practicum, 5 cr.
Practical field experience arranged to include office work, direct leadership, and procedures related to career work. Prerequisite: Permission of the instructor. (Formerly BE-235A - Administrative Assistant Practicum)

Associate Degree Nursing

ADN-401  Nursing Interventions in Maternal/Child Health, 6 cr.
This course focuses on the application of the nursing process and use of standardized nursing language in meeting the needs of the childbearing and childrearing family. Content reviews the normal childbearing process with an emphasis on identification and management of risk conditions and patient education. Review of acute disorders and assessment and nursing management of the chronically ill child from infancy to adolescence is also discussed. Cultural aspects of childbearing and childrearing are integrated throughout. (Formerly NU-266C)

ADN-402  Nursg Interventions in Maternal/Child Health Cl, 2 cr.
This course is designed to assist a student to develop skills in implementing a plan of care for maternity and pediatric clients utilizing the nursing process and standardized nursing language. The role of the registered nurse in health education and anticipatory guidance will be stressed. Experiences in acute care and community based settings will be utilized to strengthen assessment, planning, implementation and communication skills in the care of childbearing and childrearing families. (Formerly NU-262C)

ADN-461  Nursing Interventions in Mental Health, 6 cr.
This course focuses on the application of the nursing process and use of standardized nursing language in meeting the needs of clients in various psychiatric health care settings. Emphasis is placed on assessment, health promotion, prevention, intervention, and follow-up strategies for persons and families at risk for emotional distress, crisis and mental illness. Current trends and issues related to mental health problems across the lifespan in multicultural populations will be explored. (Formerly NU-228C)

ADN-462  Nursing Interventions in Mental Health Cl, 2 cr.
This course is designed to assist students to develop skills in providing nursing interventions to individuals experiencing mental health problems on a one-to-one or in a small group. Clinical experiences in acute psychiatric care and community based settings will be used to strengthen student's assessment, nursing care planning and communication skills in the care of clients with mental illness. (Formerly NU-222C)

ADN-501  Nursing Interventions in Adult Health I, 7 cr.
This course is the first of a two course sequence which focuses on the care of adults of all ages and cultures experiencing alterations in health. Emphasis is on general concepts of nursing practice, managing client care, and concepts and pathology encountered in medical surgical nursing. The nursing process, nursing diagnoses, and the Nursing Interventions Classification system guide the student in the care of clients with non-complex conditions. (Formerly NU-247C)

ADN-502  Nursing Interventions in Adult Health I Cl, 2 cr.
In the laboratory setting the student applies the principles and techniques used in assessment, parenteral therapy, and medical and surgical asepsis. The nursing process, nursing diagnoses, and the Nursing Interventions Classification system guide the student in the care of clients with non-complex relatively stable conditions. The student further develops skills in assessment, communication, and IV therapy. During this rotation, the student will follow and care for a client through the surgical experience. (Formerly NU-242C)

ADN-506  Nursing Interventions in Adult Health II, 8 cr.
This course is the second of a two course sequence which focuses on the care of adults of all ages and cultures experiencing alterations in health. Emphasis is on alterations in cardiovascular, renal/urinary, gastrointestinal, neurological, musculoskeletal, reproductive, and sensory/integumentary functions. The nursing process, nursing diagnoses, and the Nursing Interventions Classification system guide the student in the care of clients with increasingly complex conditions. This course prepares the student for entry level professional practice including management, delegation and job seeking skills. (Formerly NU-248C)

ADN-507  Nursing Interventions in Adult Health II Cl, 2 cr.
This clinical experience is designed to assist the student with development of skills necessary for an entry level professional practice. The registered nursing role is explored in several settings, including home health. The student as a member of the nursing care team will utilize the nursing process to deliver comprehensive nursing care for clients with increasingly complex conditions. (Formerly NU-229C)

Agriculture-Agronomy

AGA-112  Agronomy, 2 cr.
Introduction to the principles of farm crop production, including classification, growth and management of specific commonly grown Midwest crops. (Formerly AC-112A - Agronomy)

AGA-113  Advanced Agronomy, 2 cr.
Studies crop management problems in corn, soybeans, oats, forages and other crops in northwest Iowa, with emphasis on crop diseases, insect problems, crop production practices, and marketing. (Formerly AC-212A - Advanced Agronomy)

AGA-114  Principles of Agronomy, 3 cr.
Covers the basic principles of crop production, including classification, soil-plant relationships and growth processes in response to environment. (Formerly AT-124A - Crop Production)

AGA-131  Plant Physiology, 2 cr.
Course acquaints students with the activities of a complex plant during growth and reproduction and furthers the understanding of how these activities affect the normal production practices—planting, spraying, fertilizing, harvesting, etc. (Formerly AC-137A - Plant Physiology)

AGA-154  Fundamentals of Soil Science, 3 cr.
An introduction to basic soil formation, classification, physical properties, water, organic matter, pH, and fertility. Prerequisite: SC174A. (Formerly AT-214A - Introductory Soils)

AGA-156  Introduction to Soils, 3 cr.
Introduction to basic soil formation, soil component parts, classification, soil productivity characteristics, soil sampling, soil test interpretation, soil management and soil amendments. (Formerly AC-113A)
Course Descriptions

Agriculture-Farm Management

AGA-160 Agronomy - Nutrient Management, 2 cr.
Builds on the introductory soil fertility course and includes grid sampling sizes, plant nutrient analysis, CEC, base saturation and nutrient management planning. Prerequisite: AC128A or equivalent. (Formerly AC-216A)

AGA-166 Agronomic Applications, 3 cr.
Introduction to the study of plant structure, identification. Tillage and planting practices will also be explored and practiced. Crop scouting for crop pests and disease is explored in the lab component (Formerly AC-119A)

AGA-218 Grain Harvest Hdlg Drying Equipment, 2 cr.
Course designed to give theoretical knowledge and practical experience in the operation of a combine, grain drying and grain storing equipment. (Formerly AE-212A)

AGA-219 Planting & Seeding Seminar/Lab, 1 cr.
This course offers opportunities for participants to develop plans for spring planting operations as well as participate in equipment evaluation, maintenance and calibration. Spring planting includes seedbed preparation, seed genetics/herbicide combinations, refuge planting, mapping of fields on paper as well as with the use of GPS systems. Students will set and operate a planter at the Iowa Lakes Farm Lab and then evaluate the results such as planting depth, seed spacing, planted population and the quality of the GPS map which they plotted as planter operations took place. Evaluation of soil conditions and compaction zones from maps and hands on testing equipment will also be part of the lab component. (Formerly AG-160A)

AGA-283 Pesticide Application Cert, 2 cr.
Preparation for the student to pass the state of Iowa Custom Applicators Core Manual examination. Includes safe use and handling of pesticides. (AC-122A - Agricultural Chemicals I)

AGA-284 Agricultural Chemicals II, 3 cr.
Studies herbicide, insecticide and fumigation categories. (Formerly AC-123A)

AGA-352 Intro Fertilizer Technology, 2 cr.
Studies soil fertilization, with emphasis on fertilizer material and applications, blending, soil test recommendations and handling in meeting crop needs. (Formerly AC-132A)

AGA-353 Advanced Soil Fertility, 2 cr.
Course teaches the understanding of the manufacture of fertilizer, physical and chemical characteristics, materials and handling, and new technologies in application of fertilizers, including equipment and materials. (Formerly AC-222A)

AGA-374 Pest Identification, 1 cr.
Collection and identification of weed and insect pests affecting corn and soybeans. (Formerly AC-141A)

AGA-375 Integrated Crop Management, 2 cr.
Assists the student in developing the concepts of integrated pest management as they relate to cultural, mechanical, chemical and biological controls. (Formerly AC-136A)

AGA-101 Ag Economics & Management, 3 cr.
Economics principles applied to decision making in agribusiness. Resource allocation based on production and cost analysis. Theories of production, consumption, and pricing. Supply and demand. Management strategies for price and imperfect competition. (Formerly AB-233A)

AGA-109 Intro to Human Relations, 2 cr.
Course designed to help the students understand themselves and their potential customers, includes employer-employee relationships, human relations in agribusiness and fundamentals of advertising. (Formerly AG-112A)

AGA-110 Human Relations I, 2 cr.
Introduction to topics which relate to beginning farming in a family farm environment. Topics include personality, family relationships, decision making and social relations as they apply to everyday living and working in an on-going family operation. (Formerly AG-225A)

AGB-281 Computerized Agricultural Accounting, 1 cr.
Preparation for using a versatile computerized farm accounting system. (Formerly AG-241A)

AGB-307 Begin Accounting, 2 cr.
Covers the theory of double entry accounting, including the use of journals, ledgers, balance sheets and profit and loss statements. (Formerly AB-218C)

AGB-308 Farm Machinery Mgt Lab, 1 cr.
An individualized lab for students concurrently enrolled in AD222A. Students explore programs for their own farm operations using software programs for machinery replacement strategies and the integrated crop management database. (Formerly AD-221A)

AGB-309 Farm Machinery Mgmt, 2 cr.
Fitting power and machinery needs to specific farming operations to obtain efficiency through various analysis methods for decision-making. (Formerly AD-222A)

AGB-327 Principles of Farm Business Management, 2 cr.
Current principles and practices of farm management. Production enterprise budgets, partial budgets and cash flow budgets are explored. (Formerly AD-230A)

AGB-339 Intro to Ad Layout, 1 cr.
The opportunity of students to define, understand and actually make advertising layouts. (Formerly AB-111A)

AGB-340 Advertising, 1 cr.
Introduction to advertising as well as an understanding of the use of the various media. (Formerly AB-112A)

AGB-343 Office Procedure, 2 cr.
Course is designed to outline business procedures necessary to operate an agribusiness: sales receipts, bank drafts and other business forms. (Formerly AB-132C)
Course Descriptions

AGB-435 Intro to Grain/Commodity Mktn, 3 cr.
Introduces the basic elements of cash grain marketing and then introduces futures markets. (Formerly AD-123A)

AGB-436 Grain Merchandising, 2 cr.
Studies livestock and grain futures marketing methods including product quality, methods and options. (Formerly AD-219A - Adv Marketing)

AGB-437 Commodity Marketing, 3 cr.
Introduction to the commodity futures markets, with information on contract specifications, exchanges, basic trading information, and fundamental and technical market information. (Formerly AB-133A)

AGB-438 Ag Futures & Future Options, 2 cr.
This course is designed to build on the Intro to Marketing course and will cover topics to include, basis, merchandising, grain settlements, daily position reports, and hedging. (Formerly AD-212A - Commodity Marketing II)

AGB-439 Commodity Marketing Lab, 1 cr.
Strategies to increase proficiency in commodity and option marketing. Includes knowledge needed to sit for the Series 3 National Futures Examination. Prerequisites: AGB-437 and AGB-438. (Formerly AB-211C)

AGB-466 Agricultural Finance, 3 cr.
Studies the sources and uses of farm credit to maximize farm income. Balance sheets, income statements and cost of financing options are a critical component of this class. (Formerly AD-216A)

AGB-930 Agriculture Seminar, 2 cr.
A study of current problems in agribusiness marketing. (Formerly AB-222C)

Agriculture-Comprehensive

AGC-102 Computers in Agriculture, 2 cr.
This course includes basic knowledge of computer hardware and operation. Software applications include word processing, spreadsheets, powerpoint presentations, internet, and email. (Formerly AB-118A)

AGC-104 Applied Computers in Agriculture, 2 cr.
A computer class designed to teach Spreadsheet, Database, and Desktop Publishing Skills. Continuation of AGC-106. (Formerly AG-229A)

AGC-106 Intro to Computers, 1 cr.
Introduction to computers and their application to agriculture. The course includes computer literacy and operation, word processing and an introduction to spreadsheets. (Formerly AB-112A)

AGC-109 Advanced Computer Spreadsheets, 2 cr.
Spreadsheet applications for agriculture, using software such as Microsoft Excel. Included are lessons on spreadsheet operation and spreadsheet development. (Formerly AB-132A)

AGC-111 Basic First Aid/Life Support, 1 cr.
Teaches American Red Cross basic first aid and American Heart Association cardiopulmonary resuscitation (CPR). (Formerly AG-114A)

AGC-200 Career Seminar, 1 cr.
Student observes an agribusiness operation without pay. (Formerly AG-227A - Empl Exp Observ-Agribusiness)

AGC-210 Employment Seminar, 1 cr.
Preparation of the farm management student for entry into the non-family farm job market. (Formerly AG-221C - Employ Seeking Skills)

AGC-215 Career Seminar, 2 cr.
Course covers types of insurance, family and business budgeting, and farm organizations. (Formerly AG-226C)

AGC-316 Field Studies-Agribusiness, 1 cr.
Course is designed to take students on field trips to colleges, industries and agricultural businesses. (Formerly AB-137C)

AGC-317 Agricultural Field Studies, 1 cr.
Studies the application of crop production and animal science production practices through field studies trips. Study trips will involve research farms, industry field days, extension field days and area farms. (Formerly AG-131C)

AGC-850 Employ Exp I-Agribusiness, 3 cr.
A full-time, on-the-job, hands-on work experience in the area of agribusiness. (Formerly AG-155A)

AGC-851 Employment Exp II-Agribusiness, 5 cr.
Continuation of AGC850. (Formerly AG-125A)

AGC-852 Employment Exp III-Agribusiness, 5 cr.
Continuation of AGC851. (Formerly AG-125A)

AGC-853 Employment Exp IV-Agribusiness, 2 cr.
Continuation of AGC852. (Formerly AG-228A)

AGC-854 Employment Exp I-Ag Production Tech, 3 cr.
The first of four on-the-job training experiences in the farm management curriculum. Students gain hands-on experiences to back up technologies studied in the classroom. (Formerly AG-103A)

AGC-855 Employment Exp II- Ag Production Tech, 3 cr.
Continuation of AGC854. (Formerly AG-123A)

AGC-856 Employment Exp III- Ag Production Tech, 3 cr.
Continuation of AGC855. (Formerly AG-213A)

AGC-857 Employment Exp IV- Ag Production Tech, 3 cr.
Continuation of AGC856. (Formerly AG-223A)

AGC-928 Independent Study - Agriculture, 1 cr.
Independent study or a special project in agriculture. (Formerly AG-150A)

Agriculture-Horticulture

AGH-113 Turfgrass Management, 3 cr.
Students will learn the basics about the turfgrass industry, different varieties of grasses and the care to maintain a healthy, attractive-looking lawn. (Formerly AH-113C)

AGH-117 Weed Identification, 2 cr.
Introduces the students to identification and collecting of weeds in turfgrass, nurseries, parks, and greenhouses. Students will learn the different life cycles of weeds and proper timing to control them. (Formerly AH-132A)

AGH-126 Woody Plant Material, 4 cr.
Teaches students the various trees and evergreens hardy to Zone 4. Emphasis will be placed on Latin names and identification techniques of the plant material commonly used in the horticulture and landscaping industry. (Formerly AH-114C)
Course Descriptions

AGH-128  Plant Material II, 4 cr.
Students will know the identification, characteristics, and growing of annuals and shrubs. Emphasis will be placed on Latin names and identification techniques of the plant material commonly used in the horticulture and landscaping industry. (Formerly AH-128C)

AGH-129  Plant Material III, 3 cr.
Enterprises the students to the various perennials. Emphasis will be placed on Latin and common names and identification techniques of the plant material commonly used in horticulture and landscape usages. (Formerly AH-128A)

AGH-141  Equipment Operations, 3 cr.
Teaches the basic principles and skills of designation a landscape by using the proper plants, hardscapes, scales, balance, and many other principles to complete and sell a landscape design. (Formerly AH-116A)

AGH-151  Landscape Design Techniques, 2 cr.
Continuation of landscape installation and maintenance practices. Gives students hands on application of landscape installation and maintenance. (Formerly AH-131C)

AGH-153  Residential Landscape Design, 2 cr.
Continuation of landscape installation and maintenance practices. Gives students hands on application of landscape installation and maintenance. (Formerly AH-131C)

AGH-165  Irrigation Install & Repair, 2 cr.
Familiarize the students with the basics of the irrigation system and the components involved. (Formerly TG-102A)

AGH-256  Horticulture Chemicals, 1 cr.
Certification training in pest identification, control methods, pesticides and laws of the categories of ornamental and turf for a commercial applicators license. Prepare students to pass the core test and categories. (Formerly AH-121A)

AGH-405  Golf Course Maintenance, 3 cr.
Introduction of turfgrass management techniques utilized in the operation of a golf course. The various components studied include tee boxes, fairways, rough, greens and bunkers. Students learn how golf courses are managed in theory and practice. (Formerly AH-121A)

AGH-850  Occupational Experience I, 4 cr.
Closely supervised period of on-the-job training in a business related to horticulture. (Formerly AG-124A)

AGH-860  Horticulture Careers/Horticulture Fields Trips, 2 cr.
Enterprises the students to various careers available within the horticulture fields through speakers from different occupations and by touring different businesses in the industry. (Formerly AH-111C)

Agriculture-Mechanics

AGM-102  Farm Equipment Maintenance, 1 cr.
Basic machinery maintenance and adjustment of equipment used in agricultural business. (Formerly AE-114C)

AGM-114  Hydraulics I, 2 cr.
A study of hydraulic components, including troubleshooting, removal, repair and replacement. (Formerly FM-141C)

AGM-115  Hydraulic Components Lab, 3 cr.
Troubleshooting, repairing, removing and replacing hydraulic components. Co-requisite: AGM-114. (Formerly FM-142C)

AGM-116  Fundamentals of Hydraulic, 3 cr.
Basic hydraulic laws and principles as they apply to the farm equipment mechanics repair industry, how basic components work. (Formerly FM-153C)

AGM-117  Fundamentals of Hydraulic, 2 cr.
Using hydraulic test equipment, working at the test bench and testing hydraulics on tractors. Co-requisite: AGM-117. (Formerly FM-154C)

AGM-160  Landscape Installation and Maintenance II, 1 cr.
Continuation of AGM-204 including design and operation of diesel engines as well as rebuilding and troubleshooting procedures. Lecture and laboratory. (Formerly FM-211C)

AGM-161  Ag Construction, 1 cr.
General farm construction including concrete work, fencing, building fabrication and remodeling, electrical wiring and plumbing for water and gas. (Formerly AE-144C)

AGM-203  Ag Welding, 2 cr.
Introduction to electric, gas, wire and oxy-acetylene welding. (Formerly AE-137C)

AGM-300  Fundamentals of Electricity, 3 cr.
Basic laws and principles of electricity as they apply to the farm equipment repair industry, how basic components work. (Formerly FM-226C)

AGM-301  Fundamentals of Electricity Lab, 2 cr.
Application of electrical laws and principles in checking electrical systems on selected farm equipment using electrical test equipment. Co-requisite: AGM-301. (Formerly FM-227C)

AGM-302  Electrical Components, 2 cr.
Study of selected farm equipment electrical components and how to troubleshoot, repair or remove, and replace them. (Formerly FM-228C)

AGM-303  Electrical Components Lab, 3 cr.
Troubleshooting, repairing, removing and replacing electrical components. Co-requisite: AGM-302. (Formerly FM-229C)

AGM-411  Engine Repair, 6 cr.
Fundamentals of engine overhaul with the emphasis on diesel and gasoline engines. (Formerly FM-116C)

AGM-413  Diesel Engine Overhaul, 5 cr.
Continuation of AGM-204 including design and operation of diesel engines as well as rebuilding and troubleshooting procedures. Lecture and laboratory. (Formerly FM-211C)

AGM-415  Farm Equip Air Conditioning, 4 cr.
Theory, diagnosis and service of the complete air conditioning system as applied to farm equipment. Lecture and laboratory. (Formerly FM-121C Air Conditioning)

AGM-416  Combine & Implement Repair & Adjustment, 4 cr.
Assembly, maintenance and adjustment of harvesting, planting, tillage and spraying equipment. Lecture and laboratory. (Formerly FM-111C Agricultural Equipment)

AGM-420  Fuel Systems, 2 cr.
Study of technical principles and their application to fuel injection systems and turbos, including diagnostics, adjustments and overhaul procedures. Co-requisite: concurrent registration in AGM-421. (Formerly FM-143C)
Course Descriptions

AGM-421 Fuel Systems Laboratory, 3 cr.
Application of technical principles to fuel systems and turbos, including diagnosis, adjustments and overhaul procedures. Co-requisite: concurrent registration in AGM-420. (formerly FM-146C)

AGM-430 Differentials and Final Drives, 6 cr.
Technical principles and their application to drive shafts, universal joints, differentials, differential locks, final drives and PTO’s, including diagnosis, repair, adjustment and overhaul procedures. (formerly FM-126C)

AGM-431 Transmissions, 7 cr.
Technical principles and their application to transmissions and clutches, including diagnosis, repair, adjustment and overhaul procedures. (formerly FM-127C)

AGM-850 Dealership Experience, 2 cr.
A four week block of time in which each student works as a regular mechanic in a farm implement related dealership. (formerly FM-123C/FM-213C)

Agriculture-Precision Ag

AGP-242 Precision Ag Applications, 2 cr.
Studies the basic principles of business, including a brief overview of some economic principles and methods of doing business. (formerly AB-227A)

AGP-329 Intro to GPS, 3 cr.
An introduction to the use of GPS and VRT as it impacts agricultural producers. Students will use field mapping software and GPS systems as part of the class. (formerly AC-217A)

AGP-450 Fundamentals of GIS, 3 cr.
ArcView on Windows-based computers is used to introduce GIS concepts and potential applications. GIS data collection, connectivity, management and presentation techniques are offered in lecture-laboratory format. (formerly GT-113A)

Agriculture-Animal Science

AGS-113 Survey of the Animal Industry, 3 cr.
This course is an introduction in animal science including various species and breeds of domestic animals and gives them an appreciation for the principles of production, biological principles, stewardship, and animal industries as they relate to animal production in the U.S. and the world. (formerly AT-113A)

AGS-114 Survey of the Animal Industry, 2 cr.
Introduction to the basics of livestock and poultry production. (formerly AS-122A Intro to Animal Science)

AGS-117 Animal Science, 2 cr.
Course offers beef, swine, dairy and sheep management. (formerly AS-214A)

AGS-240 Animal Health, 2 cr.
Animal environment and adaptation, animal health and animal behavior as it relates to production and non-production species. (formerly AS-217A Animal Hlth & the Environ)

AGS-242 Animal Health, 3 cr.
Provides information about the cause, nature, prevention, and treatment of the common health problems of farm animals. Identifies animal behavior and develops a herd health program.

AGS-317 Animal Nutrition, 2 cr.
Teaches basic nutrition and ration balancing for animals. (Formerly AS-127A)

AGS-319 Animal Nutrition, 3 cr.
Nutritional principles, digestive systems, composition and nutritional characteristics of common feedstuffs, ration formulation and recommended feeding programs for farm animals. Prerequisites: AGS-113 and CHM-112 or permission of instructor. (formerly AT-218A)

AGS-350 Artificial Insemination of Cattle, 1 cr.
To provide students with hands on skills in artificial insemination in beef cows. (formerly AS-120C)

AGS-400 Swine Production I, 2 cr.
A study of various aspects of swine production followed by in-depth units on farrowing management and production skills and techniques. (formerly AS-114A)

AGS-510 Swine Confinement Systems, 2 cr.
Course deals with swine management concerns in confinement operations. (formerly AS-215A)

AGS-511 Advanced Swine Confinement Mgt, 2 cr.
Basic introduction to swine confinement systems and management, including operation of equipment, ventilation systems and record keeping. (formerly AS-221A)

AGS-520 Swine Records & Analysis, 3 cr.
Feeding, nutrition, diseases, marketing and economic principles of swine production. (formerly AS-222A)

AGS-521 Swine Grower Management, 1 cr.
Basic swine production to include nutrition, feed and feed handling, and general swine practices. (formerly AS-115A)

AGS-529 Swine Reproduction & Mgmt, 2 cr.
Provides an in-depth background for utilizing basic swine management principles. (formerly AS-117A)

AGS-556 Intro to Beef Cow Production, 2 cr.
Includes management, nutrition and breeding practices in a beef cow operation through classroom and practical experience. (formerly AS-121A)

AGS-557 Advanced Beef Cow Production, 2 cr.
Management of the beef cow herd with concentration on breed identification, reproduction, genetics, selection, calving management and record keeping systems. (formerly AS-131A)

AGS-558 Grazing Systems & Forage Mgmt, 2 cr.
Classroom and farm lab instruction covering establishment, management, economics and nutritional value of forage systems for ruminant animals. (formerly AS-142A)

AGS-559 Beef Feedlot Production, 2 cr.
Studies the buying, selling, nutrition, health and management of a beef feedlot operation. (formerly AS-213A)

AGS-561 Adv Beef Production, 2 cr.
Continuation of AGS-556. (formerly AS-224A)

AGS-562 Farm Enterprise Beef Feedlot, 1 cr.
A hands on lab were students gain skills in feeding management of beef enterprises. (formerly AS-251C)
AGS-563 Farm Enterprise Experience/Cow-Calf, 1 cr.
A hands on lab were students gain hands on skills in beef cow and calf management. (Formerly AS-258C)

AGS-564 Farm Enterprise Forage Management, 1 cr.
A hands on lab were students gain skills in pasture management practices involving MIG (Managed Intensive Grazing) and silage harvesting practices. (Formerly AS-259C)

AGS-565 Farm Enterprise Swine Tech, 1 cr.
A hands on lab were students gain skills in basic production practices needed in the swine life cycle. (Breeding, farrowing, nursery and finishing) (Formerly AS-254C)

AGS-566 Farm Enterprise Swine Management, 1 cr.
A hands on lab were students gain skills needed to effectively manage Technician level employees. Also includes production record data input, records analysis and development of work lists to manage the swine operation. (Formerly AS-255C)

Anthropology

ANT-100 Introduction to Anthropology, 3 cr.
In this course we will work to make true statements about all human beings who have ever lived, all human beings who live today, and all human beings who will ever live, even to the point of not being human. This will be an introductory survey of the field of Cultural Anthropology from the cultural materialist theoretical perspective. Students may email anytime, please put Cultural Anthropology Course in the subject line and use your whole name. The course does not have any proctored exams and is self paced. (Formerly SS-276A)

ANT-105 Cultural Anthropology, 3 cr.
Introduction to the comparative study of culture and social organization from the anthropological point of view. (Formerly SS-277A)

Art

ART-101 Art Appreciation, 3 cr.
Introduces art as a visual language, along with the methods and materials used. A brief art survey is also included, with the intent of helping the student become more informed about the visual arts. (Formerly AR-103A)

ART-110 Contemporary Art and Issues, 3 cr.
Contemporary Art and Issues is a history of visual arts course from 1940 to the present. Lives, careers, achievements and controversies of artists and the art world will be investigated. Special attention will be given to women in the arts and multiculturalism in the arts. Discussion of current and possible future trends will also be covered. (Formerly AR-206A)

ART-121 2-D Design, 4 cr.
The fundamentals needed to build effective two- and three-dimensional designs. The plastic elements of art along with the principles of organization will be introduced through a variety of hands-on experiences. (Formerly AR-233A)

ART-124 Computer Art, 3 cr.
Computer Art is a studio-oriented course designed to use the computer as a tool for creating two-dimensional imagery. Technology is now used daily in the world of art including fine arts, graphic arts, and more. Ideally, the student should have access to the all or some of the following programs and peripherals: Microsoft Word, Microsoft Paint, a digital camera or scanner. Other items that could be utilized: Adobe Photoshop, Adobe PageMaker, Adobe Illustrator, printer, and other software appropriate for art and graphic design. In addition, the student should feel comfortable sending images and files via email and the internet. (Formerly AR-183A)

ART-127 Digital Illustration, 3 cr.
Introductory course using electronic media as applied to specific problems in illustration. (Formerly AR-117A)

ART-133 Drawing, 3 cr.
For the beginning drawing student. A variety of approaches and techniques will be used to develop and/or enhance the student's drawing skills. Exploration and experimentation with alternative drawing materials and methods will be strongly encouraged and supported. (Formerly AR-119A)

ART-134 Drawing II, 3 cr.
Continuation and elaboration of Drawing I. Prerequisite: ART-133. (Formerly AR-129A)

ART-143 Painting, 3 cr.
The fundamentals of painting. A variety of painting media will be used, including oil, watercolor and acrylic. Diverse subject matter and approaches to painting will also be explored. (Formerly AR-143A)

ART-144 Painting II, 3 cr.
Continuation of Painting I with emphasis on a more personal approach regarding technique and imagery. Prerequisite: ART143. (Formerly AR-153A)

ART-173 Ceramics, 3 cr.
A studio class providing exploratory experiences in forming, firing, and decorating clay. (Formerly AR-219A)

ART-174 Ceramics II, 3 cr.
Continuation of Ceramics I with an emphasis on the development of a personal approach to form. Prerequisite: ART-173. (Formerly AR-229A)

ART-206 Art History, 3 cr.
In-depth study of how art relates to a timeline, studying art in chronological order from ancient Greece to the present. Explores the connection between great works and the environments that stimulated their creation (Formerly AR-105A)

ART-286 Photography: Portraiture, 3 cr.
Introduction to the art of portrait photography. (Formerly JR-126A)

ART-928 Independent Study, 1 cr.
Instructor guided independent experiences in art. (Formerly AR-171A)

American Sign Language

ASL-101 Intro to Am Sign Language & Deaf Cult. I, 2 cr.
An introductory level sign language course in American Sign Language, which is different from signed English. ASL has its own syntax and sentence structure. Deaf culture is explored as it relates to communication. (Formerly HD-202A)

ASL-102 Intro to Am Sign Language & Deaf Cult. II, 2 cr.
A continuation of ASL-102 adding to the students vocabulary and proficiency. (Formerly HD-222A)
**Course Descriptions**

**Automotive Technology**

**AUT-105** Intro to Automotive Technology, 4 cr.
Basic theory and correct procedures for servicing vehicles provide the student with the skills and knowledge required for routine vehicle maintenance. (Formerly AM-115C)

**AUT-115** Automotive Shop Safety, 1 cr.
This course is designed to prepare the student to work in the auto shop in a safe manner. The content will introduce the student to safety equipment, safety rules, and common accidents in the automotive service area. (Formerly AM-101C)

**AUT-116** Automotive Shop Safety, 2 cr.
Prepares the student to work in the auto shop in a safe manner. The student will be introduced to safety equipment, safety rules and avoidance of service area. (Formerly AM-113C)

**AUT-180** Engine Repair Theory, 3 cr.
Provides the student with fundamental concepts of operation, diagnosis, and repair procedures of the modern automotive internal combustion engine. (Formerly AM-153C)

**AUT-182** Automotive Engine Theory, 4 cr.
Basic engine theory; parts identification, wear measurements, wear locations, valve refacing, valve guide service, valve seat reconditioning and engine diagnosis using various tests. Includes the reconditioning of cylinders, crankshaft and camshaft. (Formerly AM-226C)

**AUT-183** Automotive Engine Lab, 5 cr.
Disassembly and assembly procedures. Diagnosis of engine malfunctions, minor repair and complete overhaul, excluding rebuilding procedures such as boring cylinders and grinding crankshafts. (Formerly AM-225C)

**AUT-186** Engine Repair Lab, 3 cr.
Hands on activities providing the student with fundamental concepts of operation, diagnosis, and repair procedures of the modern automotive internal combustion engine. (Formerly AM-156C)

**AUT-212** Automatic Transmissions/Transaxles Theory, 4 cr.
Principles of operation of torque converters, planetary gears, multiple disc clutches, one-way clutches, servos, accumulators and hydraulics. (Formerly AM-215C)

**AUT-213** Automatic Transmissions/Transaxles Lab, 3 cr.
Automatic Transmissions is a study of the basic knowledge and skills a student should possess when working on the modern automatic transmission or transaxle. (Formerly AM-218C)

**AUT-260** Manual Transmission Theory, 3 cr.
Manual Transmission is a study of the theory of operation, diagnostic principles, and repair procedures used in accordance with the modern automotive manual transmission transaxle, and drive train systems. (Formerly AM-219C)

**AUT-313** Auto Manual Dr Train/Axle Lab, 3 cr.
Hands-on class shows operation and proper repair procedures of current manual transmissions/transaxles, differentials and drive axles used in late model vehicles. (Formerly AM-217C)

**AUT-410** Steering and Suspension Theory, 2 cr.
A course to provide the student with the theory of automotive and light truck steering and suspension systems. Design, operation, diagnosis, repair, and adjustment of these systems is covered. (Formerly AM-221C)

**AUT-412** Automotive Suspension/Steering Theory, 3 cr.
Theory of automotive and light truck steering and suspension systems; covers design, operation, diagnosis, repair and adjustment. (Formerly AM-220C)

**AUT-413** Auto Suspension/Steering Lab, 3 cr.
Covers operation and service of power and manual steering gears, rack and pinion systems, and suspension systems; practices method of four wheel alignment checks and front-end alignment. ( Formerly AM-222C - Suspension Lab)

**AUT-500** Brakes Theory, 2 cr.
The theory of operation, diagnosis, and repair procedures related to the modern automotive braking system. Areas of instruction will include: mechanical, hydraulic, and electrical subsystems. (Formerly AM-142C)

**AUT-510** Brakes Lab, 3 cr.
The hands-on learning activities related to the operation, diagnosis, and repair procedures of the modern automotive braking system. Areas included will be: mechanical, hydraulic, and electrical subdivision. (Formerly AM-143C)

**AUT-512** Auto Brake Systems Theory, 5 cr.
Basic principles of brakes, the hydraulic system, disc and drum brakes, parking brakes and power assist units. Emphasis on operation, diagnosis and repair of various braking systems. (Formerly AM-135C)

**AUT-513** Auto Brake Systems Lab, 4 cr.
A lab experience which will allow the student to acquire competencies in brake diagnosis and repair procedures. (Formerly AM-135C)

**AUT-622** Auto Electrical Systems Lab, 3 cr.
Hands-on class in the operation, construction and repair of alternators, starters and electrical components as they apply to the safety and driver convenience. (Formerly AM-120C)

**AUT-623** Automotive Electrical Systems Theory, 4 cr.
Electrical theory, diagnosis and repair procedures as they pertain to the automotive charging, starting and power accessory systems. (Formerly AM-117C)

**AUT-624** Automotive Elect Systems Lab, 5 cr.
A lab experience that will provide the student with the opportunity to perform diagnosis, repair, and adjustment of automotive chassis electrical systems. Skills acquired in previous labs may be reviewed. (Formerly AM-130C)

**AUT-630** Automotive Electrical Systems, 5 cr.
Basic electricity as it pertains to the automotive chassis electrical systems. The operation, construction, and repair of charging and starting systems will be covered. Electrical components as they apply to the safety and driver convenience systems of the auto will be studied and service repair procedures investigated. (Formerly AM-116C)

**AUT-703** Automotive Heating & Air Conditioning, 3 cr.
The theory of operation, diagnosis and repair of automotive air conditioning and heating systems. Lab experience will provide the student with the opportunity to acquire the competencies required for successful automotive air conditioning and heater maintenance. (Formerly AM-115C)

**AUT-704** Auto Heating & Air Conditioning, 4 cr.
This is a study in the theory and hands-on learning activities related to operation, diagnostics and repair procedures of the modern HVAC systems used in the automotive industry. (Formerly AM-128C)

**AUT-827** Auto Ignition Systems, 4 cr.
Course Descriptions

Operation, diagnosis and repair procedures used to service the modern automotive ignition system. (Formerly AM-125C)

AUT-834 Auto Fuel Systems, 4 cr.
Diagnostic and repair procedures used to service the automotive fuel system from the fuel tank to the fuel injector. (Formerly AM-124C)

AUT-842 Auto Computerized Eng Controls, 4 cr.
Theory of operation, diagnosis and repair procedures for electronic engine control systems used by the automotive industry. (Formerly AM-126C)

AUT-851 Auto Eng Performance Diagnosis, 3 cr.
Performance Diagnosis is designed to be an applied critical thinking class. By showing them techniques to gather diagnostic information through customer interviews and technical routines they have the opportunity to develop the skills necessary to formulate rapid and accurate diagnoses of automatic drivability problems. (Formerly AM-129C)

AUT-852 Auto Eng Performance Diagnosis, 4 cr.
Diagnosis, repair and adjustment of electronic engine controls, including ignition, emission and fuel systems. (Formerly AM-127C)

AUT-890 Automotive Technology OJT, 4 cr.
Automotive Technology OJT is designed to provide the student with the real work learning activities necessary to acquaint them with the function of the modern automotive technician and the skills demanded of them. (Formerly AM-194C)

Aviation

AVI-105 Introduction to Aviation, 3 cr.
Introduction to Aviation provides a broad understanding of all aspects of the air transportation and aerospace industries. Lectures cover what has happened in the industry to date with emphasis on present and future developments in air transportation. The course examines the impact the airline industry is making on airports and other segments of aviation and aerospace. (Formerly AV-196A)

AVI-110 History of Aviation, 3 cr.
History of Aviation presents historical antecedents leading to the conquest of the air and the evolution of aviation progress to the present day. The course is intended as an introductory course for those pursuing a major in aviation or considering aviation as a vocation or wanting to gain a historical perspective of the development of the field of aviation and aerospace. (Formerly AV-199A)

AVI-129 Employ Prep Aviation Careers, 1 cr.
Teaches students how to prepare an aviation-type resume, cover letter, and how to handle an aviation job interview. (Formerly AV-208A)

AVI-139 Private Pilot Theory, 3 cr.
Private Pilot Theory is designed to prepare those students who want to obtain a Private Pilot Certificate with the information needed to successfully complete the FAA Private Pilot Airmen Knowledge Test. This course will cover such items as the fundamentals of flight, aviation weather, airplane performance, and navigation procedures along with flight planning and human factors involved in flying an aircraft. For students not desiring flight training, this course will provide valuable insight into a mode of transportation that will be an integral part of their futures. (Formerly AV-187A)

AVI-140 Private Pilot Ground School, 4 cr.
Ground school instruction in the fundamentals of aerodynamics, the flight environment, aircraft systems, performance charts, weight and balance, weather and navigation, which prepares the student to pass the FAA written examination. (Formerly AV-102A)

AVI-180 Private Pilot Flight Lab I, 3 cr.
Primary flight instruction in the basics of flying, leads to earning a Private Pilot Certificate from the FAA. The student will complete a minimum of 40 flight hours. Prerequisite: Second Class FAA Medical Certificate. (Formerly AV-101A)

AVI-212 Instrument Ground School, 4 cr.
Ground school instruction in advanced aircraft systems; commercial flight maneuvers; review of weather, aircraft performance, weight and balance, Federal Aviation Regulations and aerodynamics. Prepares students to take the FAA Commercial written test. Prerequisite: AV104A. (Formerly AV-202A)

AVI-215 Aviation Safety, 3 cr.
This course provides the student with a detailed introduction to aspects of aviation safety as well as the associated components of flight human factors, aircraft technology, weather related accidents and accident investigation. Prerequisite: AVI-105. (Formerly AV-190A)

AVI-220 Aviation Meteorology, 3 cr.
This three hour credit course is a study of the basic components of the earth’s atmosphere and provides a basic foundation in the meteorological and environmental factors that influence the formation of the various weather patterns found in near and upper atmospheric levels over the continental United States and the Northern Hemisphere. Included in the course will be discussion on how weather influences the basic aerodynamics of an aircraft in-flight and the basic pilot-static instrument system. (Formerly AV-193A)

AVI-245 Commercial/Instrument Cross Country Flt Lab, 3 cr.
The student builds total flight time and increases the solo cross-country experience. In the second portion of the course initial instrument flight training is begun. Prerequisite: AVI-180 or hold a Private Pilot Certificate. (Formerly AV-103A)

AVI-246 Commercial/Instrument Flight Lab, 3 cr.
The student develops increased instrument flying skills. At completion of the course the student should be able to earn the Instrument Commercial Pilot Certificate. Prerequisite: AVI-245 (Formerly AV-201A)

AVI-261 Commercial Pilot Ground School, 3 cr.
Ground school instruction in instrument procedures, preparing students to take the FAA instrument written test. Topics include instrument approach procedures, advance weather analysis, air traffic control procedures and advanced radio navigation procedures. (Formerly AV-105A)

AVI-300 Flight Instrument Ground School, 3 cr.
Preparation for taking the FAA written examination to become a certified flight instructor and instrument flight instructor, as well as preparation for the FAA oral portion of the required flight test for these two certificates Prerequisite: Instrument/Commercial Pilot Certificate (Single Engine). (Formerly - AV-204A)
**Business Computer Applications**

**BCA-134 Word Processing, 3 cr.**
The essentials of word processing and the use of text-editing equipment. (Formerly BE-119A)

**BCA-152 Comprehensive Spreadsheets, 3 cr.**
Provides the student with hands-on training in the use of popular spreadsheet software. (Formerly BE-253A)

**BCA-185 Beginning Web Page Development, 3 cr.**
Introduces web page construction theory along with practical applications. Content includes basic terminology, HTML language and the planning and construction of the student’s own web page. (Formerly BS-105A)

**BCA-212 Intro to Comp Business Apps, 3 cr.**
Introduction to the field of microcomputers and their components. Includes hands-on training in the use of Windows operating system, word processing, database, spreadsheet and graphic programs. No prior computer knowledge is necessary. (Formerly BS-103A)

**BCA-217 Adv Microsoft Office Apps, 3 cr.**
Covers communications, networks, Internet, Multimedia and accessories, as well as more advanced levels of operating systems and application software, in a problem-solving environment. Prerequisite: BCA-212 or CSC-110 or equivalent. (Formerly BS-203A)

**BCA-701 Keyboarding Basics, 1 cr.**
Use the computer program FasType for Windows to learn the basic skills of touch-typing. (Formerly BE-165A)

**BCA-702 Intermediate Microsoft Word, 1 cr.**
How to use Word’s publishing capabilities to create flier, newsletter, brochures and other heavily formatted documents. Online course. P/Q grading. (Formerly BE-152A)

**BCA-704 Advanced Microsoft Word, 1 cr.**
How to build time-saving macros, customize toolbars, create shortcut keys, crank out form letters and mailing labels, perform queries, and more. Online course. P/Q grading. (Formerly BE-153A)

**BCA-705 Intro to Microsoft Excel, 1 cr.**
Shortcuts and tricks for setting up fully formatted worksheets, techniques in writing powerful formulas, use functions, sorting and analyzing data, creating custom charts, three-dimensional workbooks, building links, creating macros and custom toolbar buttons. Online course. P/Q grading. (Formerly BE-154A)

**BCA-707 Intermediate Microsoft Excel, 1 cr.**
Working faster and more productively by using Excel’s features such as the PivotTable, Solver and AutoFilter. Building worksheets with decision-making capabilities and using advanced graphing techniques. Online course. P/Q grading. (Formerly BE-155A)

**BCA-708 Intro to Microsoft Access, 1 cr.**
How to use a database to store, locate, print and automate access to just about any type of information. Online course. P/Q grading. (Formerly BE-156A)

**BCA-709 Intro to Microsoft Word, 1 cr.**
Online course. P/Q grading. (Formerly BE-151A)

**BCA-710 Intermediate Microsoft Access, 1 cr.**
How to build a fully automated database management system complete with custom data entry forms, graphics and more. Online course. P/Q grading. (Formerly BE-157A)

**BCA-711 Intro to Microsoft Powerpoint, 1 cr.**
Creating slide presentations with multimedia slides, charts, outlines, graphs, clip art, hypertext links and special effects. Online course. P/Q grading. (Formerly BE-158A)

**BCA-712 Intro to PC Troubleshooting, 1 cr.**
Solving system glitches, interpreting error codes and messages, detecting and eliminating conflicts, replacing drivers and performing basic preventive maintenance. Online course. P/Q grading. (Formerly BE-159A)

**BCA-718 Introduction to QuickBooks, 1 cr.**
Setting up a chart of accounts; reconciling a checking account; creating and printing invoices, receipts and statements; tracking payables, inventory and receivables; creating estimates and generating reports. Online course. P/Q grading. (Formerly BE-161A)

**BCA-719 Quicken for Windows, 1 cr.**
How to deal with investments, loans, recurring payments electronic transactions, budgets and more. Online course. P/Q grading. (Formerly BE-162A)

**BCA-722 Introduction to the Internet, 1 cr.**
An overview of the Internet with a behind-the-scenes look at the World Wide Web, e-mail, Gopherspace, Newsgroups, FTP, chat, telephony, Telnet and more. Online course. P/Q grading. (Formerly BE-181A)

**BCA-725 WordPerfect, 1 cr.**
How to use WordPerfect to create professional looking form letters, envelopes, mailing labels and spreadsheets. Also includes creating styles, tables of contents, indexes and web pages using Corel Internet Publisher. Online course. P/Q grading. (Formerly BE-164A)
Course Descriptions

BCA-728 Creating Web Pages, 1 cr.
Designing, creating and posting a site on the Internet's World Wide Web. Low-cost marketing techniques and search engine strategies are included. Online course. P/Q grading. (Formerly BE-182A)

BCA-730 Advanced Web Pages, 1 cr.
Creating web pages incorporating tables, forms, frames, audio, scrolling text and interactive buttons, counters, cooperative banner ads, digital cash capabilities and more. Online course. P/Q grading. (Formerly BE-183A)

BCA-731 Microsoft FrontPage, 1 cr.
Using FrontPage to easily create and upload professional looking web sites without programming. Course includes processes for selecting a web host and several low cost marketing strategies. Online course. P/Q grading. (Formerly BE-185A)

BCA-732 Getting Organized With Outlook, 1 cr.
Using Microsoft Outlook to get the most out of e-mail communications and contact list, schedule appointments, track tasks and projects and organize information. Online course. P/Q grading. (Formerly BE-191A)

BCA-733 Achieve Top Search Engine Positions, 1 cr.
How to increase search engine ranking for web sites; strategies to achieve a top-ten position with major search engines. Includes access to monitoring positions, marketing techniques and may include a one-year subscription to a newsletter. (Formerly BE-192A)

BCA-734 Introduction to Windows 2000, 1 cr.
Introduction to Windows 2000 Professional software. Online course. P/Q grading. (Formerly BE-193A)

BCA-741 Basic A+ Cert: Hardware I, 1 cr.
Configuring and troubleshooting the hardware common to most personal computers. Online course. P/Q grading. (Formerly BE-168A)

BCA-742 Intermediate A+ Cert: Operating Sys, 1 cr.
This course includes DOS; DOS memory management; Windows 3x tweaking and troubleshooting; and Windows 9x installation, optimization troubleshooting. Online course. P/A grading. (Formerly BE-169A)

BCA-743 Advanced A+ Cert: Hardware/Operating Sys, 1 cr.
Study of computer technologies including SCSI, video, modems, printers, multimedia, portable PC’s and networking. Online course. P/Q grading. (Formerly BE-171A)

BCA-745 CGI Programming for the Web, 1 cr.
Making a web site fun, interactive and informative with CGI. Using CGI and the Perl programming language to work with cookies and forms to build a searchable database, bulletin board and e-mail auto responder. Online course. P/Q grading. (Formerly BE-177A)

BCA-746 Introduction to Visual Basic, 1 cr.
How to maneuver through the Visual Basic environment and use the Visual Basic language. Includes basics of window design, adding controls to user interfaces, databases and Structured Query Language (SQL); using these tools for personal applications. Online course. P/Q grading. (Formerly BE-198A)

BCA-747 Java for the Absolute Beginner, 1 cr.
Learning the Java programming language, with practical exercises and examples. Online course; P/Q grading. (Formerly BU-114A)

BCA-751 Microsoft Publisher, 1 cr.
The basics of Microsoft Publisher 2000, plus how to create a professional brochure, newsletter and a web site. Online course. P/Q grading. (Formerly BE-196A)

BCA-752 Intro to Microsoft Works, 1 cr.
Creating and modifying documents with Microsoft Works software. Online course. P/Q grading. (Formerly BE-197A)

BCA-755 Performing Payroll/QuickBooks, 1 cr.
Details the steps needed for proper setup of QuickBooks, from accessing the IRS web site to creating a new employee; tracking time and job cost data; and generating forms and reports. Online course. P/Q grading. (Formerly BE-213A)

BCA-756 101 Tips/Tricks for Imac/Macin, 1 cr.
Tips, tricks and shortcuts in the operating system, keyboard, desktop navigation, the Internet, etc. Online course. P/Q grading. (Formerly BE-214A)

BCA-757 Introduction to Windows XP, 1 cr.
Using a computer with Windows XP software. Online course. P/Q grading. (Formerly BE-219A)

BCA-758 Intermediate Microsoft Works-Spreadsheet, 1 cr.
Learn how to create, modify, and format spreadsheets and charts. You will learn how to enter labels, numbers and formulas to create a basic spreadsheet. Learn how to format a spreadsheet, use AutoFill, cell references and how to fix a circular reference. You’ll learn about functions to perform financial and statistical data, among other things. (Formerly BE-222A)

BCA-761 Designing Effective Websites, 1 cr.
Graphic Design techniques to build attractive and effective web sites., Using the typography aesthetics, color graphics, page layout and the characteristics of effective web writing. Online course; P/Q grading. (Formerly BU-102A)

BCA-762 Introduction to Flash MX, 1 cr.
Developing rich and interactive web media using Flash. Online course; P/Q grading. (Formerly BU-104A)

BCA-763 Flash MX for Absolute Beginner, 1 cr.
Creating Flash animation, presentations and web sites. Online course; P/Q grading. (Formerly BU-105A)

BCA-764 Intro to Adobe Acrobat 5, 1 cr.
Using Adobe Acrobat to create and use .pdf (portable document format) documents. Converting popular file types to .pdf, manipulation and formatting, collaboration and document sharing techniques, bookmarks and links, interactive forms and security. Online course; P/Q grading. (Formerly BU-107A)

BCA-771 Introduction to SQL, 1 cr.
The key concepts of Structured Query Language are studied, including the basic structure of relational databases, how to read and write simple and complex SQL statements and advanced data manipulation techniques. Online course; P/Q grading. (Formerly BU-122A)

BCA-772 Introduction to Oracle, 1 cr.
Learn how to use the Oracle database management system to plan, organize, and manage your data. This course will introduce you to the Structured Query Language (SQL), Oracle's SQL*Plus, and other valuable tools used to develop, manage, and reference an Oracle database. You will learn how to create an Oracle database, build various database objects for the database, and write simple SQL statements that access the data from the database. (Formerly BU-123A)
Course Descriptions

BCA-773  Intro to Perl Programming, 1 cr.
Learn Perl, a powerful and easy-to-use scripting language used on PCs, servers, and on the Internet for a wide range of programming problems. Perl is as capable and often as fast as C, C++, and Java, but is easier to learn and does not require the sort of software development tools and environments required by those languages. Perl is also more portable and supported on a greater variety of computers than many other computing languages. Perl programming skills are especially valuable for Web developers, software developers, and system administrators. (Formerly BU-124A)

BCA-774  Creating User Requirements Doc, 1 cr.
Your success as a developer depends almost entirely on your ability to meet or exceed your customers' every expectation. This course will show you, step by step, how to discover and document precisely what your customer wants. You will learn how to gather, manage, and document user requirements for any type of project in any industry. (Formerly BU-125A)

BCA-783  Intro to Dreamweaver 4.0, 1 cr.
Using Macromedia Dreamweaver for web design and development. Online course; P/Q grading. (Formerly BU-111A)

BCA-785  Intro/Microsoft FrontPage 2002, 1 cr.
Creating and uploading professional looking web sites without programming. Online course; P/Q grading. (Formerly BU-112A)

BCA-791  Intermediate PowerPoint 2002, 1 cr.
Creating exciting presentations in PowerPoint and digital media. Online course; P/Q grading. (Formerly BU-118A)

BCA-792  The Classroom Computer, 1 cr.
Using a classroom computer to create a desire for learning in students, using simple, field-tested techniques throughout the curriculum. Online course; P/Q grading. (Formerly BU-120A)

BCA-793  Intro to Database Development, 1 cr.
Uses a step-by-step structured approach to the phases of system development. Online course; P/Q grading. (Formerly BU-121A)

BCA-796  Computer Skills in Workplace, 1 cr.
Learn the fundamental computer skills you need to succeed in today's workplace. You'll discover practical applications for email, word processors, spreadsheets, and databases, gaining a working foundation for the critical computer skills you need to survive in the modern job market. (Formerly BU-128A)

Biology

BIO-102  Introductory Biology, 3 cr.
Introduction to all biology, ecology, physiology and biological principles. Intended for non-science majors. Lecture section of BIO-105. (Formerly SC-115A)

BIO-105  Introductory Biology, 4 cr.
Introduction to all biology, ecology, physiology, and biological principles. Intended for non-science majors. Lecture and laboratory. (Formerly SC-114A)

BIO-112  General Biology I, 4 cr.
Introduction to biology concepts with emphasis on ecology, cellular biology, reproduction and development, genetics and evolution. Lecture and laboratory. (Formerly SC-220A)

BIO-113  General Biology II, 4 cr.
Introduction to biology concepts with emphasis on kingdoms; taxonomy and a survey of invertebrate and vertebrate organisms; plant structures and physiology; and animal systems. Lecture and laboratory. Prerequisite: BIO-112. (Formerly SC-230A)

BIO-114  Ecology & Environment Concepts, 4 cr.
Basic ecology and environmental concepts, including population studies of the world and how they relate to environmental problems. Lecture and laboratory. (Formerly SC-118A)

BIO-151  Nutrition, 3 cr.
Normal Nutrition provides the student with a basic background of the nutrients which are essential in maintaining the physical and mental well-being of the human body. An overview of the digestive processes and the relationship to each group of nutrients is presented. Basic nutritional principles of food selection are studied with an emphasis on health promotion throughout the life cycle. Students examine their personal eating habits and identify ways to promote a health nutritional status.

BIO-159  Fund of Anatomy & Physiology, 3 cr.
An independent study course designed to give students background in the structure and function of the human body. (Formerly SC-105A)

BIO-163  Essentials of Anatomy & Physiology, 4 cr.
Structure and function of the human body with emphasis on cells, tissues and all major organ systems. Anatomy and physiology are integrated at the cellular level and at the organ/system level. Lecture and laboratory. (Formerly SC-240A)

BIO-168  Human Anatomy & Physiology I, 4 cr.
An advanced study of anatomy and physiology. The relationship between body structure and function and homeostasis forms the basis for the course. Pathological processes that result in dysfunction and disease are presented. Major topics include cell biology, histology, skin, skeletal, muscular, and nervous systems. Lecture and laboratory.

BIO-169  Human Anatomy & Physiology II, 4 cr.
An advanced study of anatomy and physiology. Exploration of the relationship between body structure and function and homeostasis forms the basis for the course. Pathological processes that result in dysfunction and disease are presented. Major topics include cell biology, histology, integumentary system, digestive system, nutrition, metabolism and body temperature regulation, skeletal system, muscular system, blood, and cardiovascular system. Lecture and laboratory. (Formerly SC-274A) This course has been replaced by BIO-168.

BIO-173  Human Anatomy & Physiology II, 4 cr.
An advanced study of anatomy and physiology. Exploration of the relationship between body structure and function and homeostasis forms the basis for the course. Pathological processes that result in dysfunction and disease are presented. Major topics include digestive, endocrine, cardiovascular, lymphatic, respiratory, immune, blood, metabolism, reproduction, urinary, fluid, electrolyte, and acid-base balance. Lecture and laboratory.

BIO-174  Human Anatomy & Physiology II, 4 cr.
Advanced study of anatomy and physiology. Exploration of the relationship between body structure and function and homeostasis forms the basis for the course. Pathological processes that result in dysfunction and disease are presented. Major topics include lymphatic and immune systems, respiratory system, fluid, electrolyte, acid-base balance, nervous system, special senses, endocrine system, urinary system, reproductive system, pregnancy and heredity. Lecture and laboratory. (Formerly SC-275A) This course has been replaced by BIO-173.
BIO-186 Microbiology, 4 cr.
General microbiology designed for the science major and nursing students. Emphasis on morphology, physiology, microbial genetics, immunology, pathology, epidemiology, and laboratory techniques. Lecture and laboratory. Prerequisite: BIO-112 or BIO-177. (Formerly SC-248A)

BIO-285 Projects in Biology, 1 cr.
Students develop and conduct their own research projects, work on actual research projects with biologists at the Department of Natural Resources, or research and conduct problem solving projects. Students must have instructor’s permission to enroll. (Formerly SC-201A)

BIO-248 Introduction to Bioscience Technology, 4 cr.
This course explores the expanding field of biotechnology and the impacts on society. Fundamental biology, chemistry and math concepts are applied through hands-on activities to emphasize essential laboratory methods. Course content and lab skills are relevant to agriculture, medicine, bioenergy and biosafety.

BIO-300 Field Biology & Lab, 4 cr.
Basic field study of the various types of ecosystems common to the Iowa Great Lakes region. Identification of plants and animals which inhabit these ecosystems. Specimen collection techniques, use of taxonomic keys, using water quality analysis equipment and ecological field methods. Lecture and laboratory. (Formerly SC-205A)

Bioprocess Technology

BPT-103 Introduction to Biomass, 3 cr.
An overall view of biomass in the areas of history, developments, and growth in conversion of plant matter to energy. This course will discuss areas of interest such as energy cycles and methods, fuel cells and energy crops with an introduction into other areas of renewable energy. (Formerly BP-103C)

BPT-106 Industry Terminology-Safety I, 3 cr.
The first of three courses, to develop a background and understanding of safety principles and requirements; to include first aid and basic OSHA (10 hour) certification. (Formerly BP-113C)

BPT-107 Intro to Materials Management, 3 cr.
Introduction to materials management concerning purchasing/supply concepts with inventory, distribution and operations involving these activities in an organization. (Formerly BP-107C)

BPT-108 Plant Management, 3 cr.
A course to inform students aspects of management in industry and supervision in the work place. The topics covered are ethics in the work place, supervisory planning, labor relations, equal employment opportunity, and employee training. Also covered are Minnesota Fair Labor and Standards Acts, Minnesota Mechanical Code and Minnesota Energy Rules.

BPT-110 Industrial Equipment, 3 cr.
This course covers process plant machinery typically found in bio refineries and its uses.

BPT-113 Instrumentation, 4 cr.
A course covering instrumentation from control loops to process control systems. Labs include process control loop training in areas of process variables, analog and discrete signals, calibration errors, flow process and measurement, and temperature and pressure measurement with classroom activities.

BPT-124 Mechanical Fund-Process Control I, 4 cr.
An introduction to plant equipment, pipes, valves, tanks, mixers, heat exchangers, distillation, pumps, motors, fans, with an emphasis on mechanical components, function and processes. Incorporated with equipment will be introduction to and applications of basic chemistry, fluid movement, heat and mass transfer. Schematics will be introduced to begin an overview of equipment interaction. (Formerly BP-124C)

BPT-130 Water Treatment, 3 cr.
This course introduces students to the need for water treatment. The course will discuss removal of sediments and biologicals including algae, bacteria, and parasites. Methods include filtration, disinfection of water and sedimentation holding tanks.

BPT-201 Plant Process and Design, 3 cr.
A course covering ethanol production, biodiesel production and design concepts. This includes the steps involved in the typical process needed for production. Also other aspects will be covered concerning production stages.

BPT-932 Biomass Internship, 5 cr.
The on-the-job internship provides the opportunity for students to combine classroom principles, laboratory activities with on-the-job experience. The student, through the interview process with a cooperating employer, is placed in the biomass (and/or related industrial) facility that will provide a variety of beneficial and learning experiences. (Formerly BP-155C)

Business

BUS-102 Intro to Business, 3 cr.
The basic fundamentals of business. Basic business and economic concepts and terminology; management, marketing, finance, human resource management, accounting and other business areas. (Formerly BS-133A)

BUS-106 Employment Strategy, 2 cr.
Students are exposed to areas of retailing through field trips and interaction with people currently in the retail business. The class will involve job seeking skills and include actual job search and interviewing experience. (Formerly BS-112A)

BUS-110 Business Math and Calculators, 3 cr.
A study of the mathematics of business in its application to a variety of vocations including fundamental mathematical processes, fractions, price and cost, interest, bank discounts, cash and trade discounts, depreciation, payroll and taxes, and financial statements. Students will acquire the skills to use Microsoft Excel to perform each concept as well as using the traditional methods.

BUS-115 Business Correspondence, 2 cr.
Emphasis on correct grammar, punctuation and spelling as applicable to written business communications, letters, memo and reports. Special notice is given to the individual student’s resume and letters of application. (Formerly BE-243A)

BUS-121 Business Communications, 3 cr.
Communication skills necessary in the business world, including use of the telephone, interviews, job applications, listening skills and letter writing. (Formerly BE-123C/246A)

BUS-125 Business Principles, 2 cr.
Guidelines for starting and operating a successful business.

BUS-126 Business Principles, 3 cr.
Introduction to record keeping, financing, employee benefits and employer problems. (Formerly TI-121C)
## Course Descriptions

**BUS-130 Intro to Entrepreneurship, 3 cr.**  
This course emphasizes these processes: understanding how to find, analyze and pursue an opportunity; understanding oneself and personality characteristics of the “entrepreneur,” examining the environment for entrepreneurship. A case and experiential approach is used. (Formerly BS-253A)

**BUS-150 E-Commerce, 3 cr.**  
Students are introduced to the basic elements of electronic commerce as a market where commercial activities are conducted. It will focus on business concepts and how to apply technology in order to be successful. Topics include market trends, globalizing a company, vendor solutions, storefronts, advertising, resource requirements, and operational issues of launching a commercial presence in today’s global electronic marketplace. (Formerly BS-186A)

**BUS-154 E-Business, 3 cr.**  
E-Business will cover the unique aspects of creating a business strategy in the E-Business environment and will focus on the internet as a medium for promotion and distribution. E-Business will discuss how traditional marketing and business arenas can be transformed in this environment. (Formerly BS-136A)

**BUS-160 Human Relations, 2 cr.**  
Students are given the opportunity to apply human relations concepts and evaluate experience and observations. Social skills required in various occupational settings will be developed, emphasizing how appropriate personal attitudes lead to social and business success. (Formerly BS-102A)

**BUS-161 Human Relations, 3 cr.**  
Students are given the opportunity to apply human relations concepts and evaluate experience and observations. Social skills required in various occupational settings will be developed, emphasizing how appropriate personal attitudes lead to social and business success. (Formerly BS-104A)

**BUS-163 Interpersonal Skills At Work, 2 cr.**  
Techniques for supervisors in relating to others, especially work group members. Considerations for helping supervisors develop and maintain positive and healthy work relationships. (Formerly BS-109A)

**BUS-175 Business Seminar I, 1 cr.**  
Introduces the Small Business Management program, career opportunities in the business world and includes an orientation to the business internship. (Formerly BS-111A)

**BUS-176 Business Seminar II, 1 cr.**  
Continuation of BUS-175. Presents students with job-seeking skills including resume preparation and interviewing training. (Formerly BS-121A)

**BUS-177 Business Seminar III, 1 cr.**  
Continuation of BUS-176. (Formerly BS-211A)

**BUS-183 Business Law, 3 cr.**  
Introduction to the development of law in our society — the legal rights and social forces of government, business, society and contracts. Presented under the legal framework of the Uniform Commercial Code. (Formerly BS-263A)

**BUS-186 Business Law II, 3 cr.**  
A continuation of BS263A in the area of sales, principal agent relationships, commercial paper, creditor rights, and secured transactions, real property, and bailments, as time permits. (Formerly BS-266A)

**BUS-197 Leadership Development, 3 cr.**  
This course explores leadership styles effective in the workplace and helps participants gain insight into their natural leadership style and implications of that style on work and group performance. (Formerly BS-117A)

**BUS-200 Time, Stress & Change Management, 3 cr.**  
This course provides students with the theories, tools, and resources to develop effective strategies that deal with managing time, stress, and change both personally and professionally. Focus will be placed on identifying, managing and/or solving real life situations. (Formerly BS-146A)

**BUS-210 Business Statistics, 3 cr.**  
Same as BUS-211. (Formerly BS-292A)

**BUS-211 Business Statistics, 4 cr.**  
The use of statistics by the methods of descriptive and inferential statistics. Both single and bivariate data are analyzed. Elementary probability and normal probability distributions are studied along with hypothesis testing linear correlation regression analysis and analysis of variance. Prerequisite: MAT-102 or 2 years of high school algebra. (Formerly BS-294A)

**BUS-212 Business Statistics II, 3 cr.**  
A continuation of BUS-211 or MAT-157. Application of statistics in a business context and use of computer software for statistics. Prerequisite: BUS-211 or MAT-157. (Formerly BS-295A)

**BUS-238 Business Problem Solving, 3 cr.**  
A capstone course for those students in business and computer science programs. The course will apply knowledge learned in business curriculum including accounting, management, marketing, information technology, e-commerce and office systems through the development of business strategy and implementation. Topics to be covered include development of a mission statement, value creation, SWOT analysis and strategy implementation and assessment. Students will share knowledge learned across their individual disciplines to perform case analysis, promoting critical thinking skills, teamwork and a cross-functional business environment. (This course should be taken in the final semester of a student’s program.) (Formerly BS-272A)

**BUS-250 Principles of Real Estate, 3 cr.**  
Fundamental principles of real estate evaluation, brokerage, financing structure, construction and real estate law. (Formerly BS-283A)

**BUS-255 Real Estate Prelicensure, 3 cr.**  
This 80 hour prelicensure course is required by the Iowa Real Estate Commission prior to examination for an Iowa Real Estate Salesperson license. Upon completion of this 80 hour curriculum a participant will be exposed to principles of real estate, terminology, mathematical calculations, procedures and ethics necessary to enable them to understand the real estate profession, prepare them to take the Real Estate Salesperson Examination, and to function as a well informed real estate salesperson. (Formerly BS-284A)

**BUS-259 Property/ Liability Insurance Principles, 3 cr.**  
This introductory course addresses the fundamentals of property and liability insurance including risk, the methods of handling loss exposures, the effective use of insurance, insurance contracts, the regulation of the insurance industry, and the financial analysis of property and liability insurers. Other topics include marketing, underwriting, and claims settlement.
BUS-268 Life Insurance/Financial Planning, 3 cr.
The focus of this course is on life insurance choices and comparison, the legal framework of life insurance, premium options, and reserves. Particularly emphasis is given to the concept of utilizing life insurance as a significant cornerstone of the financial planning processes. (Formerly BS-275A)

BUS-723 Basics of Supply Mgmt, 1 cr.
Covers basic concepts in managing the complete flow of materials in a supply chain. A complete overview of material flow from internal and external supplies to and from your organization. (Formerly BE-224A)

BUS-724 Master Planning of Resources, 1 cr.
Candidates explore processes used to develop sales and operating plans, and identify and assess internal and external demand and forecasting requirements. (Formerly BE-224A)

BUS-725 Detailed Scheduling & Planning, 1 cr.
Explore processes used to develop sales and operations plans, and identify and assess internal and external demand and forecasting requirements. (Formerly BE-225A)

BUS-726 Executing & Control of Operations 1 cr.
Focus on the areas of prioritizing and sequencing work, executing work plans and implementing controls, reporting activity results, and providing evaluation feedback on performance. (Formerly BE-226A)

BUS-727 Strategic Management/Resources, 1 cr.
Explores the relationship of existing and emerging processes and technologies to manufacturing strategy and supply chain-related function. Topics include: aligning resources with the strategic plan, configuring and integrating operating process to support the strategic plan, and implementing change. (Formerly BE-227A)

BUS-932 Practicum, 3-5 cr.
On-the-job training, usually full time, in a small business or related enterprise. (Formerly BS-205/206A)

BUS-938 Office On-The-Job Training, 5 cr.
Apprenticeship in office systems. Students will work as regular employees in offices supervised by staff members. (Formerly BE-125A)

BUS-949 Special Topics, 3 cr.
Thirty-two students total from the University of Iowa, University of Northern Iowa, Iowa State University, Buena Vista University, and Iowa Lakes Community College will participate in advanced study of entrepreneurship that will include a team-based entrepreneurial venture computer simulation, seminars with successful entrepreneurs, business and community leaders, and networking and mentoring to enhance your understanding of entrepreneurship opportunities in Iowa.

Computer Aided Drafting

CAD-111 Auto Cad I, 1 cr.
Overview of the MS-Dos environment as it relates to the operation of AutoCAD and its peripherals. Fundamental file management on a hard disk and software configuration, entity creation, editing and plotting are presented. (Formerly CD-126A)

CAD-118 Auto Cad II, 1 cr.
Continuation of CAD111, plus introductory dimensioning, blocks, attributes, data extraction, macros, menus and AutoLISP introduction. (Formerly CD-127A)

CAD-119 Computer Aided Drafting I, 3 cr.
An introduction to the graphic language, the equipment, the hardware, and the basic techniques used to create technical drawings. CAD workstations will be used to create basic entities and teach technical drafting techniques. Geometric construction using the CAD system will be taught. (Formerly CD-119A)

CAD-121 Computer Aided Drafting II, 3 cr.
Instruction of technical drawing techniques will continue on CAD stations. The (3D) dimension CAD will be surveyed, but emphasis will be placed on 2D drawing communication. Creation of multiview projections, sectional views, auxiliary views, revolutions, dimensions and tolerances will be practiced. (Formerly CD-129A)

CAD-136 Technical Design, 3 cr.
Focuses on three areas; awareness and exercise of visual design culture; an introduction to statics and strength of materials; and examination of case studies in technology decision making. Student teams will study procedures for solving problems as well as systematic design techniques. (Formerly CD-133A)

CAD-140 Parametric Solid Modeling I, 3 cr.
Techniques for pictorial drawings based on parametric solid modeling are presented in a lecture-laboratory format. Applications of these techniques for design, working and assembly drawings in manufacturing and business environments are also presented. Mechanical graphics applications are emphasized. (Formerly CD-216A)

CAD-141 Parametric Solid Modeling II, 3 cr.
Techniques for pictorial drawings based on parametric solid modeling are continued from CAD-140 in a lecture-laboratory format. Applications of these techniques for design, working and assembly drawings in manufacturing and business environments will also continue. Mechanical graphics applications are emphasized. More advanced features of Autodesk Inventor will be explored. (Formerly CD-226A)

CAD-225 Descriptive Geometry, 2 cr.
To provide the student with the ability to solve three dimensional space problems by the application of graphic methods. Problems studied will include points, lines, intersections, piercing points, revolutions, developments, and intersections of surfaces. This course is designed for drafting students as well as students in pre-engineering. (Formerly CD-132A)

CAD-230 Geometric Dimension/Tolerance, 2 cr.
A course designed to acquaint students with the standards (ANSI Y14.5M) for Geometrical Dimensioning and Tolerancing, which is required for all government related drawings and manufactured products. (Formerly CD-232A)

CAD-901 CAD Practicum, 5 cr.
On-the-job experience related to drafting or graphics with a participating business, company, or agency. Prerequisite: CAD-102. (Formerly CD-205A)

CAD-928 CADD Projects, 2 cr.
Investigation and study of a current problem or topic in the computer aided drafting and design field. Permission of instructor required. (Formerly CD-235A)

CAD-946 Seminar, 1 cr.
Career exploration and development of techniques for preparing resumes, seeking jobs, interviewing for jobs. Job keeping skills are included. Prerequisite: CD114A. (Formerly CD-206A)
Casino Management

CAS-113 Introduction to Gaming, 3 cr.
This course is focused on the management of Casino Operations and casino hotel operations. During this course, students will learn about the history of the gaming industry and how it is rapidly growing throughout the United States. Upon exploring this course, the students will gain and learn to apply managerial skills utilizing gaming regulations, staffing resources, marketing strategies, accounting concepts, gaming trends, casino hotel organizational structure, government regulations, consumer behavior, marketing strategies, economic impact, social and cultural concerns and the casino games.

CAS-122 Gaming - Management of Table Games, 3 cr.
Casino operation requires effective skills and strategies to manage, analyze and evaluate the productivity and profitability of the table games. This course will examine the core business processes of products, pricing, people interactions, productivity, and protection and share some of the best practices currently utilized in the gaming industry. You will use information, techniques and strategies to sharpen your ability to analyze and interpret the various reports and data available to assist in making better management decisions. In addition, you will learn how to develop effective and productive marketing strategies to attract, retain and monitor your customers.

CAS-183 Player Development, 3 cr.
This course covers theoretical and practical applications for the development and retention of patrons in a gaming environment. Special emphasis will be on identifying profitable customers and creating attractive packages to develop player relationships and loyalty.

CAS-910 Gaming Internship, 1 cr., 3 cr.
The on-the-job practicum provides the opportunity for students to combine classroom principles and activities with on-the-job experience. The student, through the interview process with a cooperating employer, is placed in the gaming facility that will provide a variety of beneficial and learning experiences. The student receives a salary and/or college credits for this period of the program. The on-the-job practicum provides the opportunity for students to combine classroom principles and activities with on-the-job experience. The student, through the interview process with a cooperating employer, is placed in the gaming facility that will provide a variety of beneficial and learning experiences. The student receives a salary and/or college credits for this period of the program.

Chemistry

CHM-110 Introduction to Chemistry, 3 cr.
The lecture portion of SC174A. (Formerly SC-173A)

CHM-111 Intro to Chemistry I Lab, 1 cr.
Laboratory to accompany CHM-110; same as the laboratory portion of CHM-112. (Formerly SC-172A)

CHM-148 College Chemistry II, 3 cr.
The lecture portion of CHM-152. Prerequisite: CHM-112. (Formerly SC-176A)

CHM-149 College Chemistry II Lab, 1 cr.
Laboratory to accompany CHM-148; Same as the laboratory portion of CHM-148. (Formerly SC-177A)

CHM-151 College Chemistry I, 4 cr.
The first of two general survey courses introducing the student to general, organic and biological chemistry. Topics covered are chemical calculations, atomic structure, nuclear chemistry, periodic relations, gas laws, solid state, solutions, and acids and bases. Lecture and laboratory. (Formerly SC-174A)

CHM-152 College Chemistry II, 4 cr.
Continuation of SC174A. Covers kinetics and equilibrium of chemical reactions as well as acid-base theory. Hydrocarbon naming and reactions are also covered, including alcohols, carbohydrates, amines, acids, acid derivatives, lipids, amino acids, nucleic acids and proteins, SNA, RNA and metabolism. Lecture and laboratory. Prerequisite: SC174A. (Formerly SC-175A)

CHM-166 General Chemistry I, 5 cr.
The properties of matter in terms of modern chemical principles. The topics covered are measurements, stoichiometry, atomic structure, chemical reactions, periodic relationships, gas laws, thermochemistry, quantum theory, solutions and equilibrium and inter-and intra-molecular forces. Problem solving in each of the areas is included. Lecture and laboratory. Prerequisite: High school chemistry and mathematics. (Formerly SC-196A)

CHM-176 General Chemistry II, 5 cr.
Acids and bases, oxidation/reduction, solubility products, and nuclear chemistry, kinetics, equilibrium, thermodynamics, electrochemistry, coordination complexes, qualitative analysis, and an introduction to organic chemistry. Problem solving in each of the areas is included. Includes microscale and semi-microscale lab. (Formerly SC-199A)

CHM-190 Intro to Forensic Chemistry, 4 cr.
This course covers the basics of chemistry as it relates to the forensic lab. In the course we will cover the basics of evidence collection, clues at the atomic level, the basics of chemical evidence including DNA evidence. Also covered will be the use of chemistry in explosives, arson investigations, poisoning, and estimating time of death of a victim. Lecture and laboratory.

CHM-263 Organic Chemistry I, 5 cr.
This is part of a year long rigorous survey of Organic Chemistry. Modern Organic Chemistry, including nomenclature, syntheses, structure, bonding, mechanisms and carbon and its compounds. This course is for students majoring in pre-medicine, pre-veterinary medicine, chemistry, biological sciences, and for anyone planning to take further courses in chemistry. Lecture and Laboratory. Prerequisite: CHM-176 (Formerly SC-278A)

CHM-273 Organic Chemistry II, 5 cr.
Continuation of CHM-273. This is part of a year long rigorous survey of Organic Chemistry. Classes of organic compounds studied will be aldehydes, ketones, acids and acid derivatives, amines and nitrogen derived compounds. Aromatic compounds, reactions, mechanisms, carbohydrates, nucleic acids, and proteins are covered. Lecture and laboratory. (Formerly SC-279A)

CHM-948 Special Projects, 2 cr.
Special problems in organic chemistry to cover deficiencies in a student's organic chemistry background. (Formerly SC-280A)

Chiropractic

CHR-143 Chiropractic Assisting I, 3 cr.
Designed to provide the foundation principles of the chiropractic profession including the history, philosophy and principles of chiropractic as well as patient assessment. (Formerly CT-143C)
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHR-153</td>
<td>Chiropractic Assisting II, 3 cr.</td>
<td></td>
<td>Develop skills in orthopedic and neurological assessment of patients. Includes range of motion testing, motor function and strength and evaluation, posture analysis and screening, dermatome distribution, and reflex testing. Training in chiropractic physiotherapies is included. (Formerly CT-153C)</td>
</tr>
<tr>
<td>CHR-163</td>
<td>Chiropractic Lab Procedures, 2 cr.</td>
<td></td>
<td>Training in lab work performing routine urinalysis, complete blood counts and blood collection. Normal values will be studied. (Formerly CT-163C)</td>
</tr>
<tr>
<td>CHR-941</td>
<td>Practicum, 3 cr.</td>
<td></td>
<td>On-the-job training in a chiropractic office or similar location. (Formerly CT-941)</td>
</tr>
<tr>
<td>CIS-125</td>
<td>Intro Program Logic W/Language, 3 cr.</td>
<td></td>
<td>Studies the most commonly used structured techniques of flowcharting included with the concept of data flow in large integrated systems. Also included are systems design, systems analysis and systems development for data processing solutions. (Formerly CS-116A)</td>
</tr>
<tr>
<td>CIS-141</td>
<td>Computer Science, 3 cr.</td>
<td></td>
<td>Introduction to the concepts of computer programming presenting modern structured design and techniques using Visual Basic 6.0 programming language. (Formerly CS-138A)</td>
</tr>
<tr>
<td>CIS-161</td>
<td>C++, 3 cr.</td>
<td></td>
<td>Structured language which is powerful, efficient and versatile. The student can write programs from very simple applications to advanced editors, operating systems and sophisticated application programs. (Formerly CS-223A)</td>
</tr>
<tr>
<td>CIS-162</td>
<td>C++, 4 cr.</td>
<td></td>
<td>This course introduces the general characteristics of C++. Students will learn to write code, execute, debug, explore the immense documentation and implement strategies. Prerequisite: Fundamentals of programming using Basic. (Formerly CS-194A)</td>
</tr>
<tr>
<td>CIS-165</td>
<td>Advanced C++, 4 cr.</td>
<td></td>
<td>This is the second course of a two course series. Students are introduced to some of the advanced features of C++. Students will learn how to search, sort and analyze data efficiently. (Formerly CS-198A)</td>
</tr>
<tr>
<td>CIS-171</td>
<td>Java, 3 cr.</td>
<td></td>
<td>Introduces basic Java language concepts by building applications and applets. Students will build graphic user interfaces using the Abstract Windowing Toolkit. Advanced Java concepts will be discussed. Prerequisites: CIS-141 and CIS-125. (Formerly CS-273A)</td>
</tr>
<tr>
<td>CIS-201</td>
<td>Fund of Web Programming I, 1 cr.</td>
<td></td>
<td>Provides students with a basic understanding of the development of web pages, including HTML, Dynamic HTML, and an introduction to JavaScript. (Formerly CS-191A)</td>
</tr>
<tr>
<td>CIS-202</td>
<td>Fund of Web Programming II, 1 cr.</td>
<td></td>
<td>Builds upon the basic understanding of the development of web pages presented in the introductory course, CS191A, and continues with Dynamic HTML, JavaScript, and the inclusion of multimedia in the web page environment. Prerequisite: CIS-201. (Formerly CS-192A)</td>
</tr>
<tr>
<td>CIS-204</td>
<td>Web Programming I, 3 cr.</td>
<td></td>
<td>This course will introduce students to the fundamental concepts necessary for becoming a working professional in the Web development field. This course will begin with a brief history of the technological constructs of the Internet followed by an in depth, hands on approach to XHTML and JavaScript. Concepts will include XHTML Documents Type Descriptions, basic formatting, hyperlinks, handling graphics and XHTML events. JavaScript concepts will include: The Document Object Model, variables, statements, loops, decisions and program logic. (Formerly CS-143A)</td>
</tr>
<tr>
<td>CIS-332</td>
<td>Data Base and SQL, 3 cr.</td>
<td></td>
<td>To provide students with a foundation in the design, implementation and management of database systems. A vast array of new terminology will be introduced and an illustration of the physical and logical representation of data will be presented through the use of theory and practice. The concepts of Data Modeling, Normalization and the SQL language will be explored in depth followed by actual implementation in case studies and class projects. We will also discuss the role of database technology in modern industry. Microsoft Access will be the database management system used to apply the concepts in and outside of class. (Formerly CS-233A)</td>
</tr>
<tr>
<td>CIS-402</td>
<td>Cobol, 3 cr.</td>
<td></td>
<td>Produces the COBOL programming language, typical applications and program writing for business, including editing data, arithmetic statements, 'if' statements, flowcharting, branching, etc. (formerly CS-213A)</td>
</tr>
<tr>
<td>CIS-612</td>
<td>Advanced Visual Basic, 3 cr.</td>
<td></td>
<td>This course expands upon concepts of computer programming knowledge gained from Computer Science I (CIS-141), presenting modern structured design and techniques using Visual BASIC 2005 programming language, as well as gaining some insight to industry database programming with a brief introduction to Object Oriented Programming. (Formerly CS-238A)</td>
</tr>
<tr>
<td>CIS-660</td>
<td>PERL/CGI, 3 cr.</td>
<td></td>
<td>This course will introduce the student to writing CGI programs that interface to email servers, record the number of visitors to a web page and the CGI code to a graphical interface. Prerequisite: CIS-202. (Formerly CS-193A)</td>
</tr>
<tr>
<td>CIS-700</td>
<td>Introduction to Linux, 3 cr.</td>
<td></td>
<td>This course introduces the student to Linux operating system. Brief history of Linux and UNIX followed by an in depth, hands on dissection of the operating system with an emphasis on the Command Line Interface (CLI). Students will begin by partitioning a hard drive and installing Linux before proceeding into the minute details of the text and GUI modes of operation. Concepts will include: logging in and out, dealing with files and the file system, Linux process management and general commands. (Formerly CS-163A)</td>
</tr>
<tr>
<td>CIS-928</td>
<td>Independent Study, 1 cr.</td>
<td></td>
<td>Independent study or a special project in computer science. (Formerly CS-150A)</td>
</tr>
<tr>
<td>CIS-941</td>
<td>Computer Science Practicum, 3 cr., 5 cr.</td>
<td></td>
<td>Students will gain practical experience at individual work stations and will be required to report on their field experience. Evaluations will be based on their on-site performance. (Formerly CS-230A/CS-235A)</td>
</tr>
</tbody>
</table>
**Course Descriptions**

**Cultural Studies**

CLS-131  African Studies, 3 cr.
A survey of the history and contemporary life of Africa from three perspectives: African tradition, contributions of Islam and Western influence. Africa’s economic and social systems and its global relationships are also covered. (Formerly SS-176A)

**Communication**

COM-020  Communication Skills, 3 cr.
Focuses on practical writing and business communication and on the types of writing which are useful in a workplace setting. A review of basic writing skills associated with sentence and paragraph development will be presented, as will an overview of the writing process.

COM-723  Workplace Communications, 3 cr.
Developing skills in reading, writing and listening as they apply to students' vocational needs. (Formerly TI-123C)

COM-725  Workplace Communications, 2 cr.
Refining skills in reading, writing and listening as they apply to the student's vocational needs. (Formerly CM-105C)

COM-740  Oral Communications, 2 cr.
Introduction to basic oral communication with practice in public speaking, both impromptu and prepared, interview procedures and telephone usage. (Formerly AG-222C)

COM-743  Oral Communication in the Workplace, 2 cr.
Writing and speaking skills for agribusiness technology students. (Formerly AG-216C)

COM-780  Written Communication in Workplace, 2 cr.
Reading, writing and thinking exercises for vocational preparation. (Formerly AG-107C)

**Construction**

CON-106  Construction Welding, 1 cr.
Welding techniques applicable to the construction trade. (Formerly CA-126C)

CON-113  Construction Printreading, 2 cr.
Studies the builders' visual language and communication. (Formerly CA-111C)

CON-120  Construction Estimating, 1 cr.
Estimating techniques used at the lumber desk at a retail establishment. (Formerly CA-129C)

CON-125  Construction Estimating II, 3 cr.
Construction Estimation II is an extension of the concepts learned in the first year in Construction Estimation. Processes learned in the first year class will be implemented and put into practice. Industry professionals will present different methods they use along with computerized estimation programs. Students will develop different estimation sheets for a specific task and implement into practice. (Formerly CA-229C)

CON-137  Foundations and Concrete, 7 cr.
Covers structure foundations, concrete and concrete block construction. Lecture and laboratory. (Formerly CA-112C)

CON-138  Intro to Construction, 2 cr.
Basic techniques used by the carpenter in wall framing construction. Lecture and laboratory. P/Q grading. (Formerly CA-113C)

CON-158  Carpentry Level III, 5 cr.
Carpentry Level Three is the third in the Contra series of The National Certified Carpentry program. It includes lecture and lab including exterior roof, moisture protection, stairs, metal studs, drywall, suspended ceilings, different trim applications, and cabinetry. (Formerly CA-225C)

CON-159  Carpentry Level IV, 5 cr.
Carpentry Level IV is the fourth in the Contra National certification program series. Level IV includes construction site layout, advanced roof, floor, wall and stair systems, intro to light equipment, metal buildings, and crew leader kills. (Formerly CA-245C)

CON-201  Framing Techniques and Lab I, 2 cr.
Basic framing techniques with emphasis on identification and application. Lecture and laboratory. (Formerly CA-117C)

CON-202  Framing Techniques and Lab II, 6 cr.
Explores more advanced framing and applications in major class project. Lecture and laboratory. (Formerly CA-118C)

CON-217  Exterior Finishing, 3 cr.
Exterior finish work on residential and commercial structures. Lecture and laboratory. (Formerly CA-128C)

CON-225  Techniques of Exterior Covering, 6 cr.
Studies exterior cover materials for residential and commercial structures. Lecture and laboratory. (Formerly CA-125C)

CON-228  Methods of Interior Finishing, 3 cr.
Covers interior finishing material and its installation in residential and commercial structures. Lecture and laboratory. (Formerly CA-213C)

CON-229  Install of Interior Finishing, 3 cr.
Covers interior wall coverings and their application as well as thermal and sound insulation. Lecture and laboratory. (Formerly CA-211C)

CON-329  Construction Management, 3 cr.
The Construction Internship II provides on the job training for area of interest. Students will learn about the project team, use of documents on the jobsite, submittals, shop drawings, jobsite layout, meeting control, safety management, changes and claims forms, documents and project closeout record keeping. (Formerly CA-203C)

CON-431  Construction Internship I, 6 cr.
On-the-job training to gain experience in the student's field of interest. (Formerly CA-135C)

CON-932  Internship, 3 cr.
The Construction Internship II provides on the job training for area of student interest. This course will have a manager's or supervisor’s emphasis with job shadowing and leadership skills the main focus. Students will be required to document their time and discuss with instructor during scheduled meetings. (Formerly CA-235C)

**Criminal Justice**

CRJ-100  Intro to Criminal Justice, 3 cr.
Survey of the American criminal justice system, the early, middle and late stages of the criminal justice system are analyzed within the framework of law and research. (Formerly CJ-113A)
CRJ-110  Patrol Procedures, 3 cr.
Broad examination of the various structures and functions of American Law Enforcement agencies and their functional units. The exploration of police procedures revolves around the topics of discretion, effectiveness and efficiency, and constitutional limits. (Formerly CJ-143A)

CRJ-115  Motor Vehicle Law, 1 cr.
Working professionals in law enforcement design a course of study for the students. The content of this course varies with time. Students will be introduced to the Iowa Motor Vehicle Code. Students will investigate laws pertaining to traffic, OWI, and commercial vehicle regulations. The Implied Consent Law will also be examined. (Formerly CJ-121A)

CRJ-116  Law Enforcement Seminar II, 1 cr.
Working professionals in law enforcement design a course of study for the students. The content of this course varies with time. (Formerly CJ-131A)

CRJ-117  Independent Study Law Enforcement, 1 cr.
Course taken to investigate substantive issues in law enforcement. (Formerly CJ-101A)

CRJ-120  Intro to Corrections, 3 cr.
Survey of correctional theory and practice including such topics as: historical foundations of contemporary corrections, applied theory, evaluation research, sentencing and crime prevention. (Formerly CJ-153A)

CRJ-121  Corrections Seminar I, 1 cr.
Students explore human service topics. This is often done with the assistance of correctional professionals or human service personnel in related fields. (Formerly CJ-128A)

CRJ-122  Corrections Seminar II, 1 cr.
See CJ128A. In some circumstances students can work with clients if the setting is different from the agency they choose for their field experience. (Formerly CJ-228A)

CRJ-123  Service Learning Project, 1 cr.
Courses taken to investigate substantive issues or to begin work with clients in a limited capacity. (Formerly CJ-107A)

CRJ-130  Criminal Law, 3 cr.
This course examines the elements of criminal law. Including the categories of crime by type, defenses, and individuals involved. The course also includes the historical development of criminal law.

CRJ-131  Criminal Law and Procedure, 3 cr.
Examination of the more common crimes, criminal defenses and the procedures used to process a criminal case from arrest to final disposition. (Formerly CJ-243A)

CRJ-133  Constitutional Criminal Procedure, 3 cr.
This course examines the protections afforded to individuals by the US Constitution. Specific areas addressed include initial contact with law enforcement and continues through post-conviction relief. Students should gain an understanding of criminal procedures through statutory and precedent case review.

CRJ-136  Correctional Law, 3 cr.
Examines the law in the correctional setting with obligations of correctional workers. (Formerly CJ-193A)

CRJ-141  Criminal Investigation, 3 cr.
Covers fundamentals of investigation including interviewing and interrogating; collecting and preserving evidence; modus operandi; crime scene search; etc. (Formerly CJ-253A)

CRJ-153  First Responder, 3 cr.
Teaches recognition of symptoms of illness, injuries and proper procedures for basic emergency care. This course is Department of Transportation approved. (Formerly CJ-217A)

CRJ-160  Intro Forensic Investigation, 3 cr.
An introduction to forensic investigation that exposes students to various disciplines and techniques in forensic investigation. Topics include forensic anthropology, forensic deontology, forensic entomology, forensic serology and criminalistics. (Formerly CJ-183A)

CRJ-166  Intro/Digital File Sys Forensic, 3 cr.
This course will provide Computer Forensics students with a solid foundation in the computer industry’s most popular file systems, with an emphasis on forensic processing. The course will begin with a brief overview of hard drive technology and proceed into the abstract world of logical structures. We will begin dissecting logical structures with a look at PC based partitions followed by a forensic minded look at the data structures of the following file systems: ie Allocation Table (FAT.x), New Technology File System (NTS), EXT.x and USF 1 and 2. (Formerly CJ-186A)

CRJ-170  Overview of Cybercrime, 3 cr.
This course identifies and discusses the nature of the successful cyber crime investigation and the proper preparation for trial. Students will have a better understanding of current technology used in these crimes. (Formerly CJ-263A)

CRJ-200  Criminology, 3 cr.
Scientific study of the nature and causes of criminal behavior and social deviance. (Formerly CJ-133A)

CRJ-201  Juvenile Delinquency, 3 cr.
Juvenile justice system is examined from historical constitutional and operational perspectives. Theories concerning juvenile delinquency are explored. (Formerly CJ-233A)

CRJ-207  Drug Use and Abuse, 3 cr.
Designed to help the student understand sociological aspects of drug use, abuse and treatment. (Formerly CJ-223A)

CRJ-214  Survival Spanish for Criminal Justice, 2 cr.
This program is designed to provide non-Spanish-speaking criminal justice students and police officers with functional skills in Spanish. Spanish phrases, commands, and questions practical to daily police and corrections work are covered. No prior knowledge of Spanish necessary. (Formerly CJ-140A)

CRJ-218  Field Experience I - Law Enforcement, 2 cr.
Course designed to provide students with on-the-job experience in a law enforcement agency of their choice. The student will also learn the requirements of the law enforcement profession. (Formerly CJ-202A)

CRJ-219  Field Experience II - Law Enforcement, 3 cr.
Continuation of CRJ-218. (Formerly CJ-203A)

CRJ-220  Community-Based Corrections, 3 cr.
Presents the theoretical and philosophical basis of probation, parole and other community based correctional programs. (Formerly CJ-220A)
CRJ-225  Field Experience I-Corrections, 2 cr.
On-the-job experience in a correctional agency. Students also learn the requirements of a career in the correctional field and receive training in how to find a job. (Formerly CJ-232A)

CRJ-226  Field Experience II - Corrections, 3 cr.
Continuation of CRJ225. (Formerly CJ-252A)

CRJ-250  Firearms, 1 cr.
Introduction to police firearms safety and care; use of deadly force; chemical agents; firing range safety; latest techniques of combat shooting; and recreational shooting. (Formerly CJ-111A)

CRJ-270  Forensics Computer Science I, 3 cr.
An introduction to the technical aspects of digital evidence identification, collection and analysis. Curriculum will build upon concepts presented in Computer Hardware/A+ and Overview of Cyber Crime. Topics covered will include digital file systems, data recovery and preservation, keyword searches, hard drive and floppy disk imaging, data compression and encryption. Students will receive hands-on training via case study scenarios using state of the art forensic hardware, software and methodologies, utilizing both manual and automated processes. (Formerly CJ-273A)

CRJ-271  Internet Criminal Investigation, 3 cr.
An in-depth study of the structure, protocols and technology of global Internet communication with an emphasis on criminal investigation. Topics covered include TCP/IP, network security, computer viruses and the tracking of Internet activity occurring through email, chat rooms and news groups. Current trends in Internet criminal activity will be discussed and students will perform research on relevant cases and topics. (Formerly CJ-256A)

CRJ-272  Forensics Computer Science II, 3 cr.
This course will provide Computer Forensics students with an introduction to the Linux operating system as a forensic tool for investigators. Students will be introduced to the Linux architecture by installing and configuring Red Hat Linux 9.0 and working at the shell prompt. This will be followed by using Linux based tools for forensic analysis of computer systems. (Formerly CJ-283A)

CRJ-273  Comp Forensics Capstone Project, 2 cr.
Presents the theoretical and philosophical basis of probation, parole and other community based correctional programs.

CRJ-920  Field Experience, 5 cr.
Course for students who wish to take all their experience at one time. (Formerly CJ-205A)

Collision Repair & Refinish

CRR-201  Plastic Repair, 2 cr.
Practice in performing all types of repairs to plastic components using modern techniques. (Formerly BM-156C)

CRR-203  Plastic Repairs Theory, 2 cr.
Students receive instruction and perform all types of plastic and adhesive repair as well as SMC repair. Course is achieved through industry demos, and hands on plastic repairs. (Formerly BM-158C)

CRR-302  Intro to Collision Repair, 2 cr.
Shop and tool safety, tool and equipment usage and career options in the collision repair industry are studied. Vehicle construction and components are introduced and environmental effects and proper safety, handling and disposal of hazardous materials used in collision repair are studied. (Formerly BM-141C)

CRR-226  Sheet Metal Repair Theory, 3 cr.
Metalworking skills are emphasized as the foundation of properly repairing damaged metal panels, followed by an understanding of body fillers and shaping techniques. Damage theory is covered in addition to damage analysis and the different types of steel used in automotive construction. Introduction and paint gun use for conversion coatings and primer will be covered. (Formerly BM-133C)

CRR-271  Exterior Body Construction Lab, 3 cr.
Practic in panel replacement of doors, hoods, etc. Repair and replacement of door hardware, window systems, interior and exterior trim is included. Co-requisite: CRR-221. (Formerly BM-142C)

CRR-409  Non-Structural Repair Theory, 3 cr.
Panel replacement and alignment of doors, hoods, etc. are practiced. Door hardware, window systems, and exterior and interior trim replacement and repairs. (Formerly BM-138C)

CRR-540  Structural Repair Theory, 3 cr.
The basic fundamentals of frame diagnosis and repair on conventional and unitized frames are taught. Also, the types of frame machines and safety are introduced, as well as collision theory. Structural integrity via stationary glass is covered along with its replacement. Includes replacement of structural panels, including both new and used parts. Sectioning techniques are introduced as well as a study in sideswipe, frontal, and rear damages as well as rollover damages. (Formerly BM-176C)
Prerequisite: first two semesters of program. (Formerly BM-150C)

CRR-908 Cooperative Education, 2 cr.
Job training in a collision repair facility performing assigned tasks.
Prerequisite: first two semesters of program. (Formerly BM-150C)

CRR-541 Structural Repair Lab, 2 cr.
Frame diagnosis and repair on conventional and unitized frames are performed on vehicles. Frame machines, as well as structural integrity via stationary glass is covered along with its replacement. Includes replacement of structural panels including both new and used parts. Sectioning techniques are introduced as well as a study in sideswipe, frontal, and rear damages as well as rollover damages. All above work is performed on actual vehicles. (Formerly BM-178C)

CRR-606 Mechanical Repairs Theory, 2 cr.
Accident damaged mechanical components are covered in this course. Basic repairs to electrical, suspension, steering, cooking and air conditioning systems are taught, beginning with diagnosis and an understanding of identification and system operations. (Formerly BM-172C)

CRR-607 Mechanical Repairs Lab, 1 cr.
Basic repairs to electrical, suspension, steering, cooling and air conditioning systems are performed beginning with identification of damaged parts and replacement. (Formerly BM-171C)

CRR-742 Estimating Theory, 2 cr.
Analyzing and learning to write a cost estimate using a computer as well as printed material. Knowledge of parts, manuals, nomenclature and flat rate charts is covered and shop management techniques are introduced. (Formerly BM-145C)

CRR-749 Estimating Lab, 1 cr.
Practice in analyzing a job and writing an estimate using a computer as well as printed material. Shop management skills and professionalism are demonstrated. Co-requisite: BM145C. (Formerly BM-146C)

CRR-808 Refinishing I Theory, 1 cr.
Introduction to painting including surface preparation, safety, composition of paint, primers and sealers, application techniques and equipment. (Formerly BM-154C)

CRR-809 Refinishing I Lab, 3 cr.
Practice in surface preparation, safety, application techniques for paints, primers and sealers. Masking skills and paint application are performed. Correcting paint imperfections is practiced along with application of decals and stripes. Co-requisite: BM154C. (Formerly BM-155C)

CRR-838 Refinishing II Theory, 2 cr.
Theory of adjusting tints for a color match, blending techniques, tri-coat finishes to achieve the finishes on today’s vehicles. Color theory and techniques for applying pearls and metallics are studied. (Formerly BM-164C)

CRR-839 Refinishing II Lab, 3 cr.
Practice in adjusting tints for a color match, blending and spraying tri-coat finishes and applying pearls, metallics and custom paints. Prerequisite: BM155C. Co-requisite: BM164C. (Formerly BM-163C)

CRR-908 Cooperative Education, 2 cr.
Job training in a collision repair facility performing assigned tasks.
Prerequisite: first two semesters of program. (Formerly BM-150C)

CSC-101 Computer Familiarization, 1 cr.
This course is designed to teach students basic computer skills. Emphasis will be a hands-on experience with basic software applications and file maintenance. Utilization of PowerPoint, internet skills and electronic data searches will also be included. (Formerly CS-101A)

CSC-110 Intro to Computers, 3 cr.
Introduction to microcomputers and their components. Covers computer concepts and management information systems. Hands-on training includes the use of Windows, word processing, spreadsheet, graphics and database programs as applied to the solution of business problems. (formerly BS-106A)

Disability Services

DSV-104 Making a Difference: Service Careers, 3 cr.
Introduction to the human services and helping professions. A basic overview of services available, recipient populations and issues related to helping others. Covers professionalism, teamwork and communication skills. (Formerly HD-113A)

DSV-125 Behavior Management, 3 cr.
Students will develop the beginning skills of observing and managing the behavior of others individually or in groups. This course introduces students to beginning behavior teaching methods and situations. Teaches how-to skills, such as observing, recording, designing, implementing and evaluating behavior programs. (Formerly HD-123A)

DSV-135 Assessment and Instruction, 3 cr.
This course introduces students to the value base of human services and helping professions. Address strategies and practices used in assessing and evaluating client needs, establishing and identifying resources and making appropriate referrals. Intake interviews and assessments are explored. Students will develop knowledge and basic skills in the area of programming and developing support services and community resources. Ethical issues are also addressed. (Formerly HD-116A)

DSV-150 Survival Spanish/Soc Services, 2 cr.
Participants learn Spanish skills to use in various Social Services occupational settings. No prior knowledge of Spanish necessary. (Formerly HD-132A)

DSV-155 Services & Vocational Planning, 4 cr.
Focus is on available support services and vocational aspects of rehabilitation. Content includes identification of job tasks, occupational characteristics and job matching. Students gain understanding of the need for services and the referral process. Job analysis and labor market surveys are completed. Students will develop an appreciation of the psychosocial adjustment aspects of living with a disability. This course will cover both physical and mental disabilities and services available. Students will participate with Service Learning projects. (Formerly HD-214A)

DSV-160 Counseling Skills, 4 cr.
This is an introductory course in applied counseling techniques. Students are introduced to a variety of facilitative skills and counseling concepts and work through the interviewing process in simulated helping services settings. (Formerly HD-224A)

DSV-928 Independent Study-Hum Services/Disab Studies, 1 cr.
Individualized program of study to allow the student to engage in an in-depth study of an appropriate topic. (Formerly HD-211A)
DSV-932 Internship Human Services/Disab Studies, 2 cr., 3 cr.
Practical field experience in phases of operation and duties relating to human services, paraeducation, health or rehabilitation. Focus is program writing, data collection, documentation, job skills, and participant outcome. (Formerly HD-212A and HD-213A)

DSV-941 Practicum, 3 cr., 4 cr., 6 cr.
Practical field experience in phases of operation and duties relating to human services, paraeducation, health or rehabilitation. Focus is program writing, data collection, documentation, job skills, and participant outcome. (Formerly HD-213A/HD-234A/HD-236A)

Early Childhood Education

ECE-103 Intro to Early Childhood Ed, 3 cr.
Introduces historical as well as contemporary influences with families, family and communities. (Formerly ED-109A/CC-114A)

ECE-110 Child Care Professionals I, 1 cr.
Emphasizes problem solving skills and team building through a variety of group activities. Pre-requisite: Enrollment in Child Care program. (Formerly CC-110A)

ECE-111 Child Care Professionals II, 1 cr.
Emphasizes human relations skills including communication, leadership, personal appearance, etiquette and job seeking skills. Prerequisite: Enrollment in Child Care program. (Formerly CC-120A)

ECE-115 Child Dev Study Tour, 1 cr.
Visits designed to identify professional responsibilities in a variety of child care settings. Observation and interpretation of children’s behavior will be practiced. (Formerly CC-111A)

ECE-130 Emergency Care, 1 cr.
Instruction in universal precautions for handling bloodborne pathogens, American Red Cross first aid and CPR for adults, infants and children. (Formerly CC-113A)

ECE-133 Child Health/Safety/Nutrition, 3 cr.
Studies information about current concepts in the fields of health, safety and nutrition and their relationship to the young child. (Formerly CC-112A)

ECE-140 Early Childhood Curriculum Planning, 3 cr.
Examines and evaluates early childhood curriculum and methods leading to the development and implementation of appropriate curricula for young children. Prerequisite: Completion of Child Care Diploma Program. (Formerly CC-134A)

ECE-163 Play/Creative Arts for Children, 4 cr.
Exploration of the role of play and creativity. The development of early childhood teaching skills in the areas of art, music, creative movement and language arts. Prerequisite: ECE170. (Formerly CC-126A)

ECE-164 Inquiry Activities, 4 cr.
Emphasizes the development of early childhood teaching skills in the areas of math, science and social studies. Prerequisite: ECE170. (Formerly CC-128A)

ECE-170 Child Growth and Development, 3 cr.
Studies physical/motor, social/emotional, intellectual/cognitive development of the young child from conception through adolescence. (Formerly CC-102A)

ECE-172 Practicum I, 2 cr.
Supervised experience in a child care facility. Planning, preparation and presentation of developmentally appropriate activities to facilitate children’s social, emotional, intellectual and physical growth and utilizing appropriate guidance techniques. Prerequisites: ECE170, ECE103, ECE115, ECE130, ECE133, and must be taken with or after ECE163, ECE164 and ECE243. (Formerly CC121A)

ECE-200 Early Childhood Prof I, 1 cr.
Emphasizes problem solving skills and team building through a variety of group activities. Prerequisite: Enrollment in Child Care or Early Childhood Education programs. (Formerly CC-220A)

ECE-211 Early Childhood Prof II, 1 cr.
Emphasizes human relations skills including communication, leadership, personal appearance, etiquette and job seeking skills. Prerequisite: Enrollment in Child Care or Early Childhood Education programs. (Formerly CC-220A)

ECE-243 Early Childhood Guidance, 3 cr.
Studies behavioral principles applicable to children, appropriate methods of discipline and various guidance techniques that may be used with children. Prerequisite: ECE170. (Formerly CC125A)

ECE-261 Cont Issues in Child Care, 3 cr.
An in-depth study of current political, economic, social and cultural events and their impact on children and child care. (Formerly CC-213A)

ECE-272 Practicum II, 2 cr.
Supervised experience in a child care center, kindergarten, early childhood special education classroom, or adolescent facility. Expands upon student’s Practicum I responsibilities. Prerequisites: Completion of Child Care Diploma Program. (Formerly CC-211A)

ECE-273 Practicum III, 1 cr.
Supervised experience in a child care facility. Student assists the manager in the planning, direction and implementation of the curriculum and the overall operation. Prerequisites: ECE272, ECE261, ECE140, and must be taken with or after ECE290. (Formerly CC221A)

ECE-290 Early Childhood Program Admin, 3 cr.
Covers the basic principles involved in setting up, equipping and administering a child care center. Emphasis is on business procedures, insurance, funding, state and federal regulations, staff and community relations, record keeping, policy writing, program evaluation and child care advocacy. Prerequisite: ECE272, ECE261, ECE140. (Formerly CC-223A)

Economics

ECN-120 Principles of Macroeconomics, 3 cr.
Reviews national income and output; employment and prices; money and credit; government finance; monetary and fiscal policy; economic growth and development; and international finance. (Formerly BS-113A Macroeconomics)

ECN-130 Principles of Microeconomics, 3 cr.
Reviews the organization and workings of modern economic systems; the role of markets, prices and competition in the promotion of economic welfare, alternative systems and international trade. (Formerly BS123A)
### Education

**EDU-210 Foundations of Education, 3 cr.**  
An introduction to professional education providing a historical and philosophical background from which the student can examine his or her commitment to education. Challenges and issues in education today will be discussed in the context of school organization, funding, curriculum, professionalism, legal issues and effective teacher characteristics. (Formerly ED-136A)

**EDU-212 Educational Foundations, 3 cr.**  
An introduction to professional education providing a historical and philosophical background from which the student can examine his or her own commitment to education. Challenges and issues in education today will be discussed in the context of school organization, funding, curriculum, professionalism, legal issues and effective teacher characteristics. (Formerly ED136A)

**EDU-215 Introduction to Education, 3 cr.**  
Introductory professional education course with an overview of the foundations of education in America, including current professional, social and philosophical issues in education.

**EDU-217 Introduction to Education, 1 cr.**  
Students will complete 40 hours of observation and assistance in a K-12 setting.

**EDU-218 Initial Field Experience, 2 cr.**  
Designed to provide experience in a live classroom to observe the way schools work, the role and responsibility of the teacher, and student behavior, and to increase the student's understanding of the teaching-learning process. Students record experiences in a journal format as part of their portfolio. (Formerly ED-102A)

**EDU-235 Children’s Literature, 3 cr.**  
Teaches the criteria for choosing the best children's literature and applies that criteria to evaluating materials to be used in the classroom. (Formerly ED-203A)

### Engineering Technology

**EGT-139 Statics Engineering, 3 cr.**  
Statics Engineering is a course normally taken by engineering students or those seeking employment in engineering firms. In statics, one studies methods for the determination of support forces and relationships between internal force distributions and external loads for stationary structures. Credit for, or enrollment in, college level physics is back-dated necessary for students wishing to enroll in this class. (Formerly SC-287A)

### Emergency Medical Services

**EMS-112 EMS First Responder, 3 cr.**  
Students will learn recognition of symptoms of illness, injuries and proper procedures for basic emergency care. The curriculum for this course is the National Curriculum of the US Department of Transportation, National Highway Traffic Safety Administration and the US Department of Health and Human Services, Child Health Bureau. (Formerly HO-123C)

**EMS-213 Emergency Med Technician B, 5 cr.**  
Classroom and in-hospital observation and training, examinations and a recommended five emergency ambulance runs are included in this course. Skills taught include recognition of symptoms of illnesses and injuries and proper procedures for care. The course follows the national DOT curriculum. (Formerly HO-105A)

**EMS-215 Emergency Med Tech - Interim, 3 cr.**  
The first advanced classification of an emergency medical technician.  At this level of training the EMT gains more knowledge of certain body systems and assessment. Two skills are added, intravenous therapy and advanced patient assessment. Prerequisite: EMT-Basic certification. Co-requisite: concurrent enrollment in HO211A. (Formerly HO-213A)

**EMS-216 Emergency Med Tech Lab-Interim, 1 cr.**  
Laboratory to accompany EMS-215. (Formerly HO-211A)

**EMS-611 EMT-B and Lab, 6 cr.**  
This course is designed to educate a student to an entry level Emergency Medical Technician – Basic serving a vital link in the chain of the healthcare system. The student will learn and demonstrate skills necessary for the individual to provide emergency medical care at the basic life support level for an ambulance/first responder service or other specialized services. Some of these basic skills are to recognize the nature and seriousness of the patient’s condition, administer appropriate emergency treatment, lift, move, positioning and otherwise handle the patient appropriately. Student should be able to do all this safely and effectively. (Formerly HO-106A)

**EMS-612 Paramedic Spec. - Preparatory and Lab, 6 cr.**  
This is the first course in a six-course sequence to prepare the student in the roles and responsibilities of the paramedic. This course covers Module I of the DOT National Standard Curriculum for EMT Paramedics. This includes the roles and responsibilities of the paramedic, areas of medical, legal, and ethical issues; in addition, promotion of wellbeing, illness and injury prevention and how they pertain to the paramedic’s role will be discussed. Other areas covered will be general principles of pathophysiology; emergency pharmacology; medication administration, gaining venous access, therapeutic communication and life span development. The lab component of this course will include safe measures for lifting and moving patients, proper use of protective equipment and procedures for personal protection from disease, safe administration of medications and principles of venous access; all will be practiced and demonstrated. Principles of universal precautions will be emphasized throughout the course. (Formerly HO-136C)

**EMS-613 Paramedic Spec. - Airway & Pat. Ass/Lab, 6 cr.**  
This course can only be taken after successful completion of Paramedic Specialist – Preparatory Course. It is the second course in the Paramedic sequence. The course includes Module 2 (Airway Management and Ventilation) and Module 3 (Patient Assessment) of the DOT National Standard Curriculum for EMT Paramedics. Content will include advanced airway management, physical assessment, field assessment, clinical decision making, documentation and the assessment and management of respiratory emergencies. The lab component of this course includes skills in airway management and ventilation, history taking, techniques of physical examination, patient assessment, clinical decision making, communication and AHA ACLS all will be practiced and demonstrated. This course can only be taken after successful completion of Paramedic Specialist (Preparatory) and Paramedic Specialist (Preparatory) Lab course. (Formerly HO-146C)

**EMS-614 Paramedic Spec. - Trauma & Lab, 4 cr.**  
This is the third course in the Paramedic sequence. The course includes Module 4 (Trauma) of the DOT National Standard Curriculum for EMT Paramedics. Content will include mechanism of injury, and the skills and management of soft tissue and burn injuries, as well as head, neck, chest, abdominal and other musculoskeletal trauma. The lab component of the Paramedic Specialist - Trauma course includes assessment and management of patient with shock and hemorrhage, burns, soft tissue, spinal cord, thoracic, abdominal, and musculoskele-
tal injury which will be practiced and demonstrated using the Paramedic Specialist skills check list. (Formerly HO-148C)

**EMS-615 Paramedic Spec. - Clinical, 3 cr.**
This course introduces the student to the policies and procedures of a hospital internship where skills learned in previous courses will be practiced while being supervised in various hospital departments. (Formerly HO-153C)

**EMS-616 Paramedic Spec. - Field, 3 cr.**
This course introduces the student to a beginning ambulance field experience. Students will apply knowledge and skills learned in previous courses while completing supervised ambulance runs. (Formerly HO-156C)

**EMS-624 Paramedic Spec. - Special Consideration/Lab, 4 cr.**
This is the sixth course in the Paramedic Specialist sequence. The course includes Module 6 (Special Considerations) of the DOT National Standard Curriculum for EMT Paramedics. Content includes the skills and knowledge necessary to assess and manage special age population groups including neonatal, pediatric, gerontologic patients. Special situations including chronic care patients, those who have sustained abuse/assault, culturally diverse patients as well as those with physical, mental, social and financial challenges will also be addressed. The lab component of this course will be assessment and management of special situations including neonatal and pediatric resuscitation, elderly and physical and sexual abuse, this will be practiced and demonstrated using the Paramedic Specialist - Special Considerations skills check off list. (Formerly HO-174C)

**EMS-625 PS - Assess Based Mngt/Oper/Lab, 4 cr.**
This is the seventh course in the Paramedic Specialist sequence. The course includes Module 7 and 8 (Assessment Based Management and Operations) of the DOT National Standard Curriculum for EMT Paramedics. The course includes assessment and critical decision making using scenarios. Guidelines for safe medical transport, general incident management and mass casualty incident management, rescue and crime scene management, and hazardous materials incidents will also be covered. The lab component of this course will include the student assuming the role of team leader while managing common emergencies. Principles of triage and management of multiple casualty incidents, rescue operations, and hazardous materials incidents will be practiced and demonstrated. Students will also continue to work on completion of the Paramedic Specialist skills check list. (Formerly HO-178C)

**EMS-626 Paramedic Spec. - Clinical II, 4 cr.**
This course is a continuation of a hospital internship all modules of the Paramedic Specialist courses must have been successfully completed before taking this course. With this course the skills learned in previous courses will be practiced while being supervised in various hospital departments. (Formerly HO-164C)

**EMS-627 Paramedic Spec - Field II, 4 cr.**
This course is a continuation of a field internship all modules of the Paramedic Specialist courses must have been successfully completed before taking this course. This course is a continuation of the ambulance field experience. Students will apply knowledge and skills learned in previous courses while completing supervised ambulance runs. (Formerly HO-168C)

**EMS-628 Paramedic Spec. - Medical I and Lab, 6 cr.**
This is the fourth course in the Paramedic sequence. The course includes Module 5 (Medical - Units 1-3) of the DOT National Standard Curriculum for EMT Paramedics. Content will include the skills and knowledge necessary to assess and manage medical emergencies specifically pulmonary, cardiac, and neurological emergencies. The lab component of the Paramedic Specialist - Medical I course will include assessment and management of patients with pulmonary, cardiac, neurological emergencies and will be practiced and demonstrated using the Paramedic Specialist - Medical I, skills check list. (Formerly HO-150C)

**EMS-629 Paramedic Spec. - Medical II and Lab, 6 cr.**
This is the fifth course in the Paramedic Specialist sequence. The course includes Module 5 (Medical - Units 4-14) of the DOT National Standard Curriculum for EMT Paramedics. Content will include the skills and knowledge necessary to assess and manage medical, obstetrical/gynecologic and behavioral/psychiatric emergencies. The lab component of this course will include assessment and management of patient with medical, obstetrical/gynecologic and behavioral/psychiatric emergencies and will be practiced and demonstrated using the Paramedic Specialist - Medical II skills check off list. (Formerly HO-160C)

**English Composition**

**ENG-003 Writing Foundations, 1 cr.**
Basic writing course designed for students in certificate programs. (Formerly CM-007H)

**ENG-012 Basic Writing, 2 cr.**
Individualized course in general grammar review including usage and punctuation. (Formerly CM-020H)

**ENG-028 Writing Strategies, 2 cr.**
Students explore various ways to develop, organize, and communicate ideas. Students learn how to write paragraphs and essays that are acceptable at the college level as well as review grammar, punctuation, spelling and sentence structure. (Formerly CM-011H)

**ENG-062 Intro to College Writing, 2 cr.**
This course will prepare students for college level writing. (Formerly CM-021H)

**ENG-101 Elements of Writing, 3 cr.**
Students will be provided additional practice in writing beyond the writing foundations level, if needed. A review of grammar and usage skills is included along with writing practice involving the process approach of prewriting, drafting, and rewriting. This course will not meet requirements for AA degree or AS degree. (Formerly EN-100A)

**ENG-105 Composition I, 3 cr.**
Emphasis on expository and argumentative writings including a review of usage and mechanics. Prerequisite: satisfactory score on the ACT, ASSET or COMPASS as determined by Iowa Lakes policy, or completion of ENG-028. (Formerly EN-113A)

**ENG-106 Composition II, 3 cr.**
Continuation of English I with emphasis on research and documentation as well as literary analysis. Prerequisite: ENG105. (Formerly EN-123A)

**ENG-221 Creative Writing, 3 cr.**
Processes and methods of creating poetry and fiction. Reading the work of professional writers and applying various techniques of imaginative writing through workshops, discussion and individual conferences. (Formerly EN-244A)
## Environmental Science

**ENV-145 Conservation Biology, 4 cr.**
This course examines the ecological principles used in the preservation of biological diversity. Some topics explored are population dynamics, conservation genetics, island biogeography, mathematical modeling of ecological systems, disturbance ecology, Geographic Information Systems (GIS), reserve theory and wildlife corridors. Labs will involve field work, data analysis, computer work and research. (Formerly SC-148A)

## Environmental Studies

**EVS-114 Environmental Studies I, 4 cr.**
Environmental Studies I is an introduction to ecology and environmental science. This course acquaints the student with the relationship between humans and their environment and the environmental problems that often develop because of this relationship. Topics covered include concepts of ecology, population dynamics, human ecology and environmental law. Lecture and laboratory. (Formerly EV-114A)

**EVS-124 Environmental Studies II, 4 cr.**
Environmental Studies II is an introduction to the study of global resources management and the analysis and control of environmental pollution. This course acquaints the student with the fundamentals of resource management and the physical, chemical, and biological analysis of pollutants that contaminate the Earth’s biosphere. Topics covered include global resources, resource management, environmental pollution and pollution control. Lecture and laboratory. (Formerly EV-124A)

**EVS-203 Environmental Seminar I, 1 cr.**
Environmental Seminar I is an opportunity for career exploration and development of job seeking skills. Emphasis is placed on familiarization of environmental and conservation agencies, resume’ preparation, and job seeking skills including preparation of job correspondence and application forms, and participation in job interviews. (Formerly EV-203A)

**EVS-204 Environmental Seminar II, 1 cr.**
Environmental Seminar II is an opportunity to prepare for participation in cooperative education and to develop a presentation to be made in a seminar format. Emphasis is placed on continued development of job seeking skills, preparation for the Environmental Studies Practicum, and the skills needed to prepare and make a presentation addressing a current environmental topic. (Formerly EV-204A)

**EVS-234 Introduction to Environmental Technology, 4 cr.**
Introduction to Environmental Technology places an emphasis placed on the recognition, inventory, and evaluation of environmental pollutants. Attention is given to the sources and types of environmental pollutants and the problems that they create. Topics covered include environmental impact, air pollution, water pollution, and hazardous materials. (Formerly EV-234A)

**EVS-244 Environmental Technology Techniques, 4 cr.**
Environmental Technology Techniques places an emphasis on the problems associated with environmental pollution and the techniques available to monitor, document, and control environmental pollution. Attention is given to those environmental problems that may cause sickness or impaired health in humans. Topics covered include environmental regulations, environmental safety, control of pollutants, and waste management. (Formerly EV-244A)

**EVS-245 Introduction to Natural Resources Management, 4 cr.**
Introduction to Natural Resources Management places an emphasis on the recognition, inventory, and conservation of natural resources. Attention is given to the distribution and availability of natural resources and the limitations associated with their usage. Topics covered include management of natural resources, hydrospheric resources, lithospheric resources, and atmospheric resources. Lecture and laboratory. (Formerly EV-245A)

**EVS-254 Natural Resources Management Techniques, 4 cr.**
Natural Resources Management Techniques places an emphasis on the problems associated with the usage of natural resources and the techniques available to evaluate, develop, and manage natural resources. Attention is given to renewable resources and the management techniques that can be utilized to best conserve these resources. Topics covered include wildlife management, forest and recreational land management, agricultural and rangeland management, and fisheries management. (Formerly EV-254A)

**EVS-264 Environmental Seminar II, 1 cr.**
Environmental Seminar II is an opportunity to prepare for participation in cooperative education and to develop a presentation to be made in a seminar format. Emphasis is placed on continued development of job seeking skills, preparation for the Environmental Studies Practicum, and the skills needed to prepare and make a presentation addressing a current environmental topic. (Formerly EV-264A)

**EVS-264 Environmental Seminar II, 1 cr.**
Environmental Seminar II is an opportunity to prepare for participation in cooperative education and to develop a presentation to be made in a seminar format. Emphasis is placed on continued development of job seeking skills, preparation for the Environmental Studies Practicum, and the skills needed to prepare and make a presentation addressing a current environmental topic. (Formerly EV-264A)

## Finance

**FIN-101 Principles of Banking, 3 cr.**
Fundamentals of bank functions, designed for bankers and prospective bankers. Develops an understanding of where banking has been and where it is going. Studies deposit, payment and credit functions as well as funds management and specialized products and services (Formerly BS-173A)

**FIN-121 Personal Finance, 3 cr.**
The basics of budgeting and buying, the intricacies of home ownership, income tax and investments and the use of insurance, wills and trusts. (Formerly BS-163A)

**FIN-140 Business Finance, 3 cr.**
Financial principles, statement of changes in financial position, income statement and balance sheet analysis to aid in asset management by financial personnel. (Formerly BS-216A)

**FIN-180 Intro to Investments, 3 cr.**
Study of the many complex and intriguing components of the investment world for both the business world and for personal use. (Formerly BS-178/273A)

## Foreign Language-Spanish

**FLS-112 Spanish for Professionals: Bus, 2 cr.**
Participants learn Spanish skills to survive in a Latin American setting. In addition, they are taught to identify and overcome common cultural barriers encountered by U.S. business personnel when dealing with Latin Americans. No prior knowledge of Spanish necessary. (Formerly BS-140A)

**FLS-141 Elementary Spanish I, 4 cr.**
Introduction to the Spanish language and culture; practice in all the basic skills. (Formerly FL-118A)

**FLS-142 Elementary Spanish II, 4 cr.**
Continuation of FLS141, which is a prerequisite (Formerly FL128A)
FLS-241 Intermediate Spanish I, 4 cr.
Review and expansion of grammar, selected reading and further practice in oral and written communication. Prerequisite: FLS142. (Formerly FL-218A)

FLS-242 Intermediate Spanish II, 4 cr.
Continuation of FLS241, which is a prerequisite. (Formerly FL-228A)

FLS-946 Seminar, 1 cr.
Special projects within a small group. (Formerly FL-103A)

**Graphic Communications**

GRA-118 Electronic Publishing, 3 cr.
Basic understanding of the components used in an electronic publishing system and an introduction to desktop publishing. Emphasis is on using a microcomputer for word processing using existing art, creating art and combining text and art to create page layouts and output to hard copy. Software training on Microsoft Word, Quark Express, TypeStyler, and Aldus PageMaker and using the scanner to input artwork. (Formerly AR-108A)

GRA-121 Digital Drawing, 3 cr.
Graphic image design introduction using the Illustrator program. Students will create both black and white and multicolor graphic using Illustrator's tools and menu commands. (Formerly AR-173A)

GRA-140 Digital Imaging, 3 cr.
Introduction to the image editing software Photoshop. Students will work with basic scanning techniques. manipulation procedures, use of layers and third-party plug-ins. (Formerly AR-163A)

GRA-162 Web Page Graphics, 3 cr.
An introduction to the creation of graphics and animation for use on web pages using current software programs such as Adobe Photoshop, Illustrator, and Flash. This course first introduces the standard Web based image formats and then quickly moves into the Flash environment. Flash concepts include animation basics, tweening, Flash symbols and instances, buttons, movie clips, and beginning ActionScript. (Formerly AR-106A)

GRA-175 Graphic Design, 3 cr.
Students work with advanced design problems and concepts. Emphasis is placed on the design and preparation of a resume and portfolio. (Formerly AR-125A)

GRA-188 Advert Layout & Composition, 3 cr.
Balance, proportions and harmony as they apply to printed images on paper. The paint system, type selection, copy-fitting, use of ornaments and the psychology of advertising are included. (Formerly AR-133A)

GRA-234 Dreamweaver Level I, 3 cr.
This introductory course focuses on the proper use of web technologies to design and develop web sites. You will use Adobe Dreamweaver to learn how to create properly structured XHTML and Cascading Style Sheet documents, incorporate images, work with colors and backgrounds, present data in tables, and use CSS for laying out web pages. (Formerly BG-163A)

GRA-235 Dreamweaver Level II, 3 cr.
This course focuses on Advanced CSS and XHTML as well as benefits of web standards and their role in Search Engine Optimization. Topics include CSS navigation methods, advanced CSS layouts and techniques, working with and styling forms, formatting and styling tables, frames and framesets, styling and controlling pages for print, alternative media style sheets, controlling presentation for mobile devices, and working with multiple style sheets. (Formerly BG-184A)

GRA-236 Dreamweaver Level III, 3 cr.
Combines skills learned from Dreamweaver Levels 1 & 2 with server-side languages and databases such as PHP and MySQL. Topics include PHP syntax and language operating environment, using control structures, loops, and arrays in PHP, form processing, database manipulation, handling record sets, data validation, and concepts and design of Content Management Systems. (Formerly BG-264A)

GRA-717 Introduction to Photoshop 7, 1 cr.
This course teaches students the most practical features of Photoshop 7. Online course; P/Q grading. (Formerly BU-117A)

GRA-720 Photoshop 6 for Absolute Begin, 1 cr.
This course teaches students the use of Photoshop with simple, detailed, step-by-step instructions. Online course; P/Q grading. (Formerly BE-220A)

GRA-721 Introduction to Photoshop 6, 1 cr.
This course teaches students to use layers, filters, actions, blends, composites, seamless patterns, fill layers, and the free transform command. Online course; P/Q grading. (Formerly BE-221A)

GRA-730 Photoshop 7 for Absolute Beg, 1 cr.
How to use PhotoShop with simple, detailed, step-by-step instructions for working with graphics on a personal computer. Online course; P/Q grading. (Formerly BU-131A)

GRA-731 Digital Photography Output, 1 cr.
This course teaches students to master the art of digital image file management. Including editing, cropping, resizing, special effects, printing, and emailing digital photos. Online course; P/Q grading. (Formerly BU-230A)

GRA-766 Photoshop Basics, 1 cr.
Using Adobe Photoshop to alter photographs, create digital collages, scan images and print them properly or download them to the web. Online course. P/Q grading. (Formerly BE-166A)

GRA-794 Marketing Bus/Org on Internet, 1 cr.
Helps small business owners, marketing directors, advertising personnel, web site designers and others to develop and implement a web strategy or Internet marketing plan. Online course. P/Q grading. (Formerly BE-194A)

GRA-928 Independent Study, 1 cr.
Independent study or a special project in art. (Formerly AR-150A)

GRA-932 Internship, 4 cr.
Supervised, paid work experience in a business or industry involved with some area of commercial art. (Formerly AR-234A/BG-204A)
**Course Descriptions**

### Health Care Administration

**HCA-110 Health Care Administration I, 3 cr.**
Overview of the health care administration field designed to give a basic understanding of the history, present and future, of health care facilities. Organizational structure and administration of health care facilities is emphasized. (Formerly HC-113A)

**HCA-111 Health Care Administration II, 3 cr.**
Building on the team approach to providing services, this course will identify the types of service units with which the administrator will have contact and/or will manage. Each service unit will be examined in depth. No prerequisite. (Formerly HC-123A)

**HCA-112 Health Care Administration III, 3 cr.**
Building design, layout and facility maintenance; physical plant construction and financing. (Formerly HC-133A)

**HCA-120 Legal and Political Aspects Health Care, 3 cr.**
Overview of national organizations representing health care institutions; the organization of federal, state and local government; and legislation relating to health care institutions. Health planning and securing funds through grants. (Formerly HC-226A)

**HCA-125 Health Care Accounting, 1 cr.**
Accounting as related to the health care industry including understanding financial statements and ratios; preparing an operating budget; using financial analysis to help with decision-making. (Formerly HC-211A)

**HCA-130 Communication With the Elderly, 3 cr.**
The process of aging and its effects on communication behavior. An introduction to communication theories and principles as they apply to communication with the elderly. Skills and strategies for facilitating more satisfying and effective communication between the students and the elderly. (Formerly GR-111A)

**HCA-135 Gerontology, 3 cr.**
Introduction to the issues and problems relating to the process of aging and the later stages of the adult life cycle. The physical aging process, the roles of the aged in our society and the complex psychological and sociological aspects of aging are covered. (Formerly GR-123A)

**HCA-163 Intro to Senior Living Communities, 3 cr.**
This course is an introduction to assisted living, congregate and continuing-care retirement communities. It focuses on administration, resident services, marketing and sales, ancillary services and contracts. (Formerly GR-143A)

**HCA-280 Health Care Practicum I, 2 cr.**
Examines the leadership role of the administrator and the processes of planning, organizing and directing for which an administrator is responsible. The purpose and use of policies and procedures in facility management are discussed. (Formerly HC-111A)

**HCA-281 Health Care Practicum II, 3 cr.**
Examines the nature, scope and performance of each segment of the team providing services to the resident-client. (Formerly HC-122A)

**HCA-282 Health Care Practicum III, 2 cr.**
Examines the planning, operation and maintenance of the physical plant, including planning for emergency situations. (Formerly HC-132A)

**HCA-283 Health Care Admin Practicum IV, 2 cr.**
Exposes students to the legislative/political process, state nursing home organizations and to the role of the administrator in the political arena. (Formerly HC-212A)

**HCA-284 Health Care Admin Practicum V, 2 cr.**
Studies the sources of institutional revenue and expense. (Formerly HC-222A)

**HCA-285 Health Care Admin Practicum VI, 1 cr.**
Observation of all departments within residential care facilities, hospitals and other health care facilities. (Formerly HC-233A)

**HCA-946 Seminar, 1 cr.**
Seminar for those planning to take the Iowa state board examinations for licensure. (Formerly HC-231A)

### Hospitality Culinary & Management

**HCM-104 Applied Food Service Sanitation, 4 cr.**
Information and practices to help the food service manager apply sanitation procedures to food handling from purchasing and storage to preparation and serving to patrons. This course is part of the National Restaurant Association management development diploma program and certification. (formerly BH-217A)

**HCM-105 Food Fundamentals, 4 cr.**
Reviews the skills and attitudes needed for successful employment in the food service industry. This course and its components are the latest additions to the PrpMgmt program. PrpMgmt is a college-level curriculum driven by industry research and academic excellence and created by the educational foundation of the National Restaurant Association and the Culinary Institute of America. (formerly BH-105A)

**HCM-141 Food Production, 5 cr.**
Preparation of menus and serving foods and aesthetic appeal for dining rooms. Emphasizes meat, vegetables and dessert cookery. Sanitation, quality and cost of foods served to consumers are stressed. (Formerly BH-125A)

**HCM-206 Food Lab I, 2 cr.**
An elective course designed to introduce students to the actual operation of quick service institutional cookery, cafeteria operations and banquets. (Formerly BH-132C)

**HCM-207 Food Lab 2, 2 cr.**
An elective course designed to introduce students to the actual operation of quick service institutional cookery, cafeteria operations and banquets. (Formerly BH-142C)

**HCM-208 Food Lab 3, 2 cr.**
An elective course designed to introduce students to the actual operation of quick service institutional cookery, cafeteria operations and banquets. (Formerly BH-152C)

**HCM-209 Food Lab 4, 2 cr.**
An elective course designed to introduce students to the actual operation of quick service institutional cookery, cafeteria operations and banquets. (Formerly BH-162C)

**HCM-229 Nutrition for the Life Cycle, 4 cr.**
Practical, 'how-to' course focusing on nutrition as it relates to personal health; foods, and food preparation; menu planning and recipe codification; and marketing of nutritious menu items in the food service industry. (Formerly BH-107A)

**HCM-237 Modified Diets, 4 cr.**
Focuses on the basic principles of diet therapy and menu modification for several diseases. Covers nutrition assessment, care plans, anthropometric measurements, diet history and diet instruction. (Formerly BH-208A)
Course Descriptions

HCM-265 Mathematics for Hospitality, 3 cr.
Reviews the fundamentals of mathematics, including methods of figuring percent, discount, mark-up, mark-down and interest. Problems related to the hospitality industry and practice on the ten-key calculator will be included. (Formerly BH-123A)

HCM-310 Hospitality Law, 3 cr.
Provides an awareness of laws concerning hotel-motel management and illustrates the possible consequences of failure to satisfy legal obligations. (Formerly BH-233A)

HCM-319 Intro to Hospitality Field, 3 cr.
A detailed look at restaurant and institutional food service operations, hotel and motel management, travel, tourism and international hospitality. Students will learn to better evaluate career opportunities, learn the level of quality and service necessary in an ever-changing industry. (Formerly BH-106A)

HCM-450 Job Seeking Skills I, 2 cr.
Students are exposed to a variety of hospitality areas through field trips and interaction with people currently in the hospitality industry. The class will involve job seeking skills and include actual job search and interviewing experience. (Formerly BH-126C)

HCM-451 Job Seeking Skills II, 2 cr.
Students are exposed to a variety of hospitality areas through field trips and interaction with people currently in the hospitality industry. The class will involve job seeking skills and include actual job search and interviewing experience. A continuation of BH126C. (Formerly BH-226C)

HCM-590 Housekeeping Management, 3 cr.
This course is designed to provide important technical information for persons seeking careers in the pivotal area. Every attempt has been made to thoroughly cover the day-to-day complexities of the housekeeping professions – planning and organizing to budgeting, to supervising and performing the work itself. This is a certification course offered through the American Lodging Institute. It is your link with the global hospitality industry. (Formerly BH-104A)

HCM-591 Housekeeping Management, 3 cr.
Technical information for persons seeking careers in the hospitality management area. Covers the day-to-day complexities of the housekeeping profession, from planning and organizing to budgeting, supervising and performing the work itself. Certification course offered through the American Hotel and Motel Association. (Formerly BH-109A)

HCM-592 Convention Management, 3 cr.
A course designed to provide practical insight into the different kinds of meetings and conventions, the types of organizations that stage such events, and the people who hold the key to site selection. To provide advice and suggestions on how to reach and sell to these important groups and people. To learn how to analyze a hotel property to determine which segments of the market may be sold and serviced successfully and how to organize a staff to go after desired business. Practical advice is also given on how to finalize an event through negotiations and letters of agreement. (Formerly BH-213A)

HCM-593 Restaurant Management, 4 cr.
Introduces the principles of modern restaurant and food service management: purchasing, storing, inventory, food service equipment, menu design, restaurant design and food service operations. (Formerly BH-216A)

HCM-594 Food & Beverage Management, 4 cr.
Includes buying food in quantity and methods of food production for large groups with practical experience gained in a laboratory study of sales, service and control of beverages. (Formerly BH-226A)

HCM-595 Front Office Operations/Night Audit, 4 cr.
Emphasizes the efficient operation of the front office area, including reservations, greeting guests, hotel-motel services and payments. Charge account systems and controls, billing methods, checkout procedures and a learning experience with an accounting posting machine are included. (Formerly BH-124A)

HCM-705 Hospitality Club Activities, 1 cr.
Developing leadership, teamwork, communication, commitment and cooperation as required in the hospitality industry. (Formerly BH-119C)

HCM-707 Hospitality Club Activities II, 1 cr.
Developing leadership, teamwork, communication, commitment and cooperation as required in the hospitality industry. (Formerly BH-129C)

HCM-709 Hospitality Club Activities, 1 cr.
Developing leadership, teamwork, communication, commitment and cooperation as required in the hospitality industry. (Formerly BH-219C)

HCM-711 Hospitality Club Activities, 1 cr.
Developing leadership, teamwork, communication, commitment and cooperation as required in the hospitality industry. (Formerly BH-229C)

HCM-938 On-The-Job Training, 5 cr.
On-the-job training, usually full-time, in a hotel, motel, restaurant or related business. (Formerly BH-135A)

History

HIS-110 Western Civilization: Ancient to Modern, 3 cr.
Surveys the origins of human civilization in the Near East, the great rise of Greece and Rome and concludes with the Enlightenment. (Formerly SS-146A)

HIS-111 Western Civilization: Modern to Present, 3 cr.
Examines an extremely dynamic phase of European and world history. (Formerly SS-147A)

HIS-151 U.S. History to 1877, 3 cr.
Study of national foundations, colonial background, revolution, confederation and institutions; nationalism and expansion. The growth of democracy and war plus reconstruction are analyzed. (Formerly SS-156A)

HIS-152 U.S. History Since 1877, 3 cr.
Covers re-union growth of big business, expansion and World War I, rise to world power, isolation, modern industry, depression, recovery and internationalism. (Formerly SS-157A)

HIS-201 Iowa History, 3 cr.
Provides an understanding of the history of Iowa as it relates to international history. Special attention is given to ethnic groups and their contributions. (Formerly SS-256A)

HIS-251 U.S. History 1945 to Present, 3 cr.
Investigation of the rise of the United States after World War II to the modern country of the present. Topics include: aftermath of World War II, nuclear power, the Cold War, Vietnam, diplomacy, presidential power, and family life. (Formerly SS-293A)

HIS-255 American Indian History & Culture I, 3 cr.
A survey of the important events and cultures of the Native American people from the earliest times to the reservation era. The survey will be limited to the Native people of the United States and Alaska. (Formerly SS-283A)
**Course Descriptions**

**HIS-257 African American History, 3 cr.**  
Deals with the experience of blacks in the history of the United States. Topics include African Heritage, the slave trade, slavery in the Antebellum South, the Civil War and emancipation, the Jim Crow era, the Harlem Renaissance, the civil rights struggle, and modern black America. (Formerly SS-238A)

**HIS-285 Classical Heritage, 3 cr.**  
An introduction to music and art in the western world. The period from Classical Greece to the present is studied. (Formerly SS-263A)

**Health Information Technology**

**HIT-244 Basic CPT Coding, 3 cr.**  
Systematic coding concepts using CPT/HCPCS coding and classification systems. Emphasis is placed on assigning and classifying valid procedure codes in ambulatory care, emergency room, operating room and physician office settings. Students work with actual medical records, placing emphasis on accuracy outpatient coding guidelines and conventions, reimbursement and billing as well as compliance issues. (Formerly ME-186C)

**HIT-245 Basic ICD-9-CM Coding, 3 cr.**  
Classification of disease and diagnostic processes through ICD-9 coding, placing emphasis on accuracy, concepts and compliance issues. ICD-9 coding is used for identification of medical necessity in procedures, reimbursement, utilization patterns and the study of health care costs. (Formerly ME-187C)

**Health Sciences**

**HSC-114 Medical Terminology, 3 cr.**  
Studies medical terminology, including spelling and definitions. (Formerly BE-102A)

**HSC-134 First Aide/CPR, 1 cr.**  
Emergency care for the injured. Airway management, hemorrhage control, care for shock victims, CPR/lifesaving skills. (Formerly TI-141C)

**HSC-145 Pharmacology in Nursing, 3 cr.**  
Provides the student or practicing LPN or RN with a reliable and current pharmacological basis, emphasizing the nurse’s role in applying the knowledge of medications to patient care. (Formerly NU-276C)

**HSC-146 Medication Aide, 2 cr.**  
This 50 hour medical aide course is for certified Nurse Aides or Residential Attendants and prepares them to administer oral medication in long term care facilities, as outlined by the Iowa Department of Public Health. (Formerly HO-142C)

**HSC-163 Nutrition, 3 cr.**  
Provides the student with a basic background of the nutrients which are essential in maintaining the physical and mental well being of the human body. An overview of the digestive process and its relationship to each group of nutrients is presented. Basic nutritional principles of food selection are studied with emphasis on health promotion throughout the life cycle. Students examine their personal eating habits and identify ways to promote a healthy nutritional status. (Formerly HL-118A & PNN-275)

**HSC-172 Nurse Aide, 3 cr.**  
The academic component of the program preparing persons for employment as a nurse aide in long term care and in skilled nursing units in Iowa’s Hospitals. The clinical component may be accomplished by completing NU103A. Upon satisfactory completion of both course, which meet both federal and state requirements, the student is eligible to write the state-approved competency examination and skill test for certification. (Formerly HO-102A)

**HSC-177 Nurse Aide II, 3 cr.**  
Classroom and clinical experience combine to provide training in basic nursing skills, attitudes and understanding the role of the nurse aide. Prerequisite: HO102A. (Formerly HO-103A)

**HSC-186 Human Growth and Development, 3 cr.**  
Exploration of the normal characteristics, physical, social and emotional development of individuals from infancy through the aged adult. This course will include a discussion of how various theorists view the stages of growth and development through the lifespan. (Formerly HL-112A)

**HSC-187 Human Growth and Development – Adult, 1 cr.**  
An exploration of the normal characteristics, physical, social and emotional development of individuals from the young adult through the aged adult. This course will include a discussion of how various theorists view the stages of growth and development through the lifespan. (Formerly HL-111A)

**HSC-194 Rehabilitative/Restorative Aid, 3 cr.**  
Prepares persons who are working as nurse assistants with the knowledge and skills to safely and effectively provide rehabilitative therapies under the direction of a physical therapist or occupational therapist. Prerequisite: knowledge and skills at the nurse assistant level and experience working with chronically ill or aging residents or patients. (Formerly HO-143C)

**HSC-217 Introduction to Pathology, 3 cr.**  
This course is designed to provide the student with the body systems disease process by presenting the disorders, etiology, progression, signs and symptoms and standard approaches to diagnosis and treatment.

**HSC-223 Human Relations, 2 cr.**  
Designed to promote understanding of human interactions, including motivation, emotion, intelligence, personality as well as social relations with application to the institutional setting and manager/employee and employee/employee relationships. (Formerly HL-223A)

**HSC-235 Supervision in Health Care, 2 cr.**  
Assists registered nurses and licensed practical nurses in gaining knowledge and developing skills useful in managing personnel and client care. (Formerly HO-152C)

**Human Services**

**HSV-140 Social Work and Social Welfare, 3 cr.**  
Goals, values and legal aspects of the social work profession. Roles of social workers in human service institutions. Service learning experience at an agency is included. (Formerly SS-193A)

**HSV-162 Intro to Human Disabilities & Services, 3 cr.**  
Introduces classifications, etiology, characteristics, educational and vocational considerations of persons with disabilities. (Formerly ED-126A)

**HSV-225 Counseling Skills, 3 cr.**  
This is an introductory course in applied counseling techniques. Students are introduced to a variety of facilitative skills and counseling concepts and work through the interviewing process in simulated helping service settings.
### Journalism

**JOU-115  Introduction to Journalism, 3 cr.**
Students receive an overview of the journalism profession. Emphasis focuses on the fundamental principles of news gathering and writing, copy reading, proofreading, editing, and newspaper makeup. Substantive areas include the history and contemporary state of journalism. (Formerly JR-163A)

**JOU-120  Beg News Writing, 3 cr.**
This course will cover the processes of understanding what is news, methods of gathering information for news stories, writing stories, editing principles, writing cut lines and headlines, editorials and feature stories, for print, audio and video. Students will contribute stories to the college newspaper, radio and television newscasts and supplement the stories with video. (Formerly JR-143A)

**JOU-121  Newswriting and Reporting, 3 cr.**
The process of understanding what is news, methods of gathering information for news stories and writing news stories; editing principles, writing headlines and photo captions, editorials and feature stories. (Formerly JR-153A)

**JOU-140  Newspaper Lab I, 2 cr.**
Provides the student with the skills and knowledge of newspaper operations, including deadline pressures, story writing, photography, editing, layout and beats. (Formerly JR-110A)

**JOU-141  Newspaper Lab II, 2 cr.**
Continuation of JOU-140. (Formerly JR-122A)

**JOU-171  Introduction to Photography, 3 cr.**
Introduction to the 35mm camera: selection and handling; theory of light; lenses and focusing; depth of field and film types; composition; film processing and basic darkroom techniques. (Formerly JR-113A)

**JOU-173  Digital Photography, 3 cr.**
Basic digital theory, how the digital camera works. Includes digital capture; input into the computer; digital manipulation; basic PhotoShop and photography; saving digital images for future use and long term archiving on zip disks, CD’s and hard drives; how to print digital images; and how to send digital images after formatting for sending. (Formerly JR-123A)

**JOU-176  News & Forensic Photography, 3 cr.**
A survey of basic photographic skills needed to create publishable news photographs using 35mm and digital cameras. A survey of basic photographic skills needed to create photographs for police department and court use of crime scenes, evidence, individuals and for interdepartmental use. (Formerly JR-216A)

**JOU-210  Media Law and Ethics, 3 cr.**
Legal, ethical and business concerns surrounding the mass media, as contemporary issues and from historical perspectives. (Formerly JR-213A)

**JOU-220  Advanced Newswriting, 3 cr.**
This course follows a basic journalism writing course. Students will develop advanced skills in writing in AP style, research and news gathering, and identifying news stories. They will learn how to develop news sources, how to develop multiple stories from one source or meeting, and how to write multiple-source stories. (Formerly JR-156A)

**JOU-240  Newspaper Lab III, 2 cr.**
Continuation of JOU-141. (Formerly JR-212A)

**JOU-241  Newspaper Lab IV, 2 cr.**
Continuation of JOU-240. (Formerly JR-220A)

**JOU-941  Practicum, 2 cr., 5 cr.**
Practical work experience related to journalism. (Formerly JR-234A/JR-236A)

### Paralegal/Legal Studies

**LGL-111  Introduction Law and Paralegal, 3 cr.**
An introduction to the legal profession with special emphasis on the responsibilities of the paralegal. Students will learn the core skills required of paralegals, including verbal and written communication, critical thinking and analytical reasoning, and investigation and case management. The course also addresses the ethical obligations of paralegals. (Formerly LA-114A)

**LGL-140  Wills, Trusts and Estate Admin, 3 cr.**
A study of wills, trusts, probate procedures, estate administration taxes, and testament and intestate succession. Students will learn how to draft basic wills, trusts, and advance health care directives. Students will also learn how to administer a typical estate. (Formerly LA-214)

**LGL-151  Legal Research & Writing I, 4 cr.**
An introduction to the legal research and writing process with an emphasis on writing case briefs and objective memoranda of law. (Formerly LA-124A)

**LGL-155  Legal Writing and Drafting, 2 cr.**
Detailed examination of the various types of legal documents, their content and preparation. (Formerly LA-222A)

**LGL-180  Torts and Litigation, 3 cr.**
A study of tort law, including negligent, intentional, and strict liability torts. Students will learn how to draft pleadings, discovery requests, and pretrial documents in tort cases. (Formerly LA-213A)

**LGL-200  American Trial Process, 3 cr.**
A study of the American trial process. Students will research, prepare and present a hypothetical case to a judge and jury. (Formerly LA-133A)

**LGL-205  Employment Law, 3 cr.**
Study of what law applies to the Employment setting. Introduction to Employment Discrimination, Whistleblower Protection, Wage and Hours laws, Sexual Harassment, Worker’s Compensation, Employer Tort Liability, Unemployment Insurance, and liability issues arising under OSHA, ERISA and other Federal Statutes. (Formerly LA-143A)

**LGL-240  Civil Procedure and Practice, 4 cr.**
A study of civil procedure using the civil procedure rules. Students will learn how to draft demand letters, pleadings, discovery, and pretrial documents in civil cases. (Formerly LA-224A)

**LGL-250  Family Law, 3 cr.**
Study of law and procedures relative to marriage, dissolution and adoption. (Formerly LA-122A)

**LGL-771  Introduction to Criminal Law, 1 cr.**
An in-depth look at criminal law and the real world of prosecutors, defense attorneys, and the paralegals who work closely with them. (Formerly LA-171A)
Course Descriptions

LGL-772 Evidence Law, 1 cr.
As courts get more crowded, busy attorneys are relying more and more on paralegals, legal secretaries and law clerks to help them gather and evaluate evidence and prepare cases for trial. This course will provide background information in these exciting areas of law. (Formerly LA-172A)

LGL-773 Legal Term/Process/Ethics/Tort, 1 cr.
Provides an overview of the American judicial system focusing on the origins of American law and the litigation process. (Formerly LA-173A)

LGL-774 Legal Documents and Analysis, 1 cr.
Provides an overview of common legal documents. You will prepare sample documents and learn to analyze legal problems. (Formerly LA-174A)

LGL-775 Evidence/Legal Interviewing/In, 1 cr.
Provides an overview of how evidence is gathered and used in a civil case. (Formerly LA-175A)

LGL-776 Legal Authority and Research, 1 cr.
Provides the student with skills needed to conduct legal research. (Formerly LA-176A)

LGL-777 Computers/Legal Writing/Appellate Procedures, 1 cr.
This course explains how to use computers to assist in legal research. You will practice your legal writing skills by preparing a sample appellate brief. (Formerly LA-177A)

LGL-778 Law Off Admin/Advocacy/Job Hun, 1 cr.
This course provides a look into the paralegal in the law office and presents techniques for finding a job as a paralegal. (Formerly LA-178A)

LGL-779 Practicum, 4 cr., 6 cr.
Supervised work experience in a law office, legal services office or other law-related agency. (Formerly LA-235A/LA-238A)

Literature

LIT-101 Intro to Literature, 3 cr.
Examines literary elements of three major genres of literature: short fiction, poetry, drama and film. Includes both contemporary and traditional works. (Formerly EN-110A)

LIT-110 American Lit to Mid-1800’s, 3 cr.
Explores major American writers (including Native Americans) and their contributions to American letters from Puritan times to 1865. (Formerly EN-213A)

LIT-111 American Lit Since Mid-1800’s, 3 cr.
Explores major American writers and their contributions to American letters from the post-Civil War era through modern periods. (Formerly EN-223A)

LIT-112 American Novel, 3 cr.
A survey of the American Novel with emphasis on 20th century works. (Formerly EN-236A)

LIT-113 American Poetry, 3 cr.
Survey of modern American poetry. Examines both the works and lives of 13 of America’s greatest poets. (Formerly EN-133A)

LIT-114 African American Literature, 3 cr.
Students will examine the literary, artistic, and sociopolitical traditions of the black experience in America. A variety of fiction and nonfiction works will be analyzed with emphasis on slave narratives, turn of the century political writings, the Harlem Renaissance, the Black Arts Movement, and contemporary cultural texts. (Formerly EN-163A)

LIT-133 Minority Voices in U.S. Lit, 3 cr.
An introduction to writers from American minority groups, considered in the social and cultural contexts of the various groups. Includes discussing and writing about various issues. (Formerly EN-283A)

LIT-134 Multicultural Literature, 3 cr.
Exploration of a variety of literary types. The cultural and ethnic voices that are in an undeniable part of modern American life. Students read, discuss and critique materials representing a wide range of ethnic, racial and other culturally diverse groups. Emphasis centers on the assessment and appreciation of the strength and values that cultural diversity brings to contemporary American society. (Formerly EN-156A)

LIT-141 British Literature II, 3 cr.
This course surveys modern British literature from the Romantic Era to the present with emphasis upon the major authors of the past two centuries. Interpretive, analytical, and critical papers are assigned. (Formerly EN-153A)

LIT-150 World Literature I, 3 cr.
Literature from the Ancients, classical Greece and the Renaissance. (Formerly EN-253A)

LIT-151 World Literature II, 3 cr.
Literature from the Enlightenment through Romanticism, Realism and Naturalism to Modernism. (Formerly EN-273A)

LIT-161 The Short Story, 3 cr.
Evolution of the short story as a literary form, with emphasis on analysis and appreciation. (Formerly EN-233A)

LIT-184 Young Adult Literature, 3 cr.
This course is designed to help adults who work with young adults become more familiar with teens and their literature, and select the best literature available based upon criteria and sources that allow for the selection of the best literature for young adults. (Formerly ED-223A)

LIT-195 Nature of Evil in Literature, 3 cr.
A study of the social idea of evil as it is reflected in literature through the centuries (from Paradise Lost to the Exorcist). Prerequisite: EN113A (Formerly EN-243A)

LIT-299 Individual Projects, 1 cr.
Independent study or a special project in English (Formerly EN-150A)

Medical Assistant

MAP-111 Medical Office Mgt I, 3 cr.
Administrative procedures such as reception techniques, telephone skills, appointment scheduling, mail processing, office equipment operation and maintenance, travel arrangements, insurance forms, and coding will be studied. (Formerly ME-144C)

MAP-117 Medical Office Management II, 3 cr.
Covers private and public insurance types, processing and handling claims, insurance coding and legal precautions in claims processing. Instruction in pegboard accounting, banking procedures and financial record keeping, and records management is an integral part of the course. Prerequisite: MAP-111. (Formerly ME-145C)
MAP-128 Automated Medical Office, 2 cr.
Computer technology and medi-team simulation of an actual medical clinic situation. Recording patient appointments, insurance information, patient medical information and the use of forms for medical office financial transactions. (Formerly ME-131C)

MAP-133 Medical Transcription, 3 cr.
Develops proficiency in the use of dictation and transcription equipment. Medical tapes of actual case histories, consultations, and surgical diagnostic and autopsy reports are used to provide a realistic experience. Application and correct spelling of medical terminology is continuous with the learning process. (Formerly ME-147C)

MAP-135 Medical Transcription II, 3 cr.
This course will be used to further develop proficiency in the use of transcription equipment and software. The student will utilize skills developed within the previous Medical Transcription course. In this course the student will concentrate on seven types of report format used by the AAMT and utilized in medical facilities today. Application, proofreading, as well as anatomy and medical terminology will be utilized and improved during this course. (Formerly ME-155C)

MAP-141 Medical Insurance, 3 cr.
Educates the student in the area of health insurance and billing. Develops an understanding of all health insurance plan options, expansions as well as modifications in state and federal regulations. Instruction will be given in the areas of processing health insurance claims, planning options, carrier requirements, state and federal regulations, abstracting relevant information from source documents, accurately completing claim forms, and coding diagnoses and procedures. (Formerly ME-206C)

MAP-233 Medical Laboratory Procedures, 4 cr.
Laboratory safety measures and familiarization with the care and use of laboratory equipment. Urinalysis techniques including collection, physical examination and microscopic examination of urine specimens. Microbiology classification and the collection and preparation of microbiological specimens. (Formerly ME-150C)

MAP-253 Limited Radiology I, 3 cr.
Provides the foundation principles of physics and radiographic imaging necessary for the practice of limited radiology. Emphasis is on the application of the scientific concepts. (Formerly ME-213C)

MAP-254 Limited Radiology II, 4 cr.
Introduces positioning for the practice of limited radiology. Prerequisite: ME213C. (Formerly ME-224C)

MAP-330 Career Prep Medical Asst, 1 cr.
Teaches necessary skills for successful resume writing and job interviewing. Prepares medical assistants for their summer practicum with practical application of learned skills. Orientes students to the Practicum experience. (Formerly ME-139C)

MAP-342 Clinical Assisting I, 3 cr.
On-the-job training to provide students with training in medical asepsis; infection control; interviewing and obtaining patient information; vital signs; vision screening; assisting the physician with various physical examinations; instructing patients with physical therapy needs; and performing electrocardiograms. (Formerly ME-162C)

MAP-343 Clinical Assisting II, 3 cr.
Further on-the-job training in aseptic techniques and assisting with minor surgery examinations, including the identification and use of instruments; sterilization and disinfection techniques; sterile dressing application; and cast application and care. (Formerly ME-163C)

MAP-402 Medical Law and Ethics, 2 cr.
This course is designed to provide the student with legal and ethical knowledge to make proper professional judgments. Topics include legal issues pertinent to the medical and chiropractic clinics. Major bioethical and ethical issues are included. (Formerly ME-169C)

MAP-453 Medical Assisting Mental Hlth, 2 cr.
The basic principles of psychology as they apply to the student's personal, social and vocational life. (Formerly ME-140C)

MAP-515 Pharmacology, 3 cr.
Commonly administered drugs, their uses and the effect on the body. Information on correct dosage, methods and routes of drug administration, dosage calculation and the legal and ethical standards for the administration and dispensing of drugs by the physician. (Formerly ME-156C)

MAP-543 Human Body in Health & Disease I, 4 cr.
Anatomical and biological processes of the following systems: structure of cells, tissue, organs, mechanism of disease, integumentary, digestive, respiratory, cardiovascular, lymphatic, hematological, skeletal, muscle. Disease and disorders of the above systems. (Formerly ME-141C)

MAP-553 Human Body in Health & Disease II, 4 cr.
The course introduces the students to the principles of the anatomical structures and the physiology of the following systems: Blood, heart, circulatory, lymph, respiratory, endocrine, urinary, male and female reproduction and pregnancy, labor and delivery. Efforts are made to offer current medical concepts according to recent research findings and methods and treatments. (Formerly ME-143C)

MAP-940 Medical Secretary Practicum, 3 cr.
On-the-job training in a position related to the student's career goal. (Formerly ME-173C)

MAP-941 Practicum, 3 cr.
On-the-job training in a position related to the student's career goal. (Formerly ME-176C)

Mathematics

MAT-004 Mathematics Foundations, 1 cr.
Basic mathematics course designed for students in certificate programs. (Formerly MA-007H)

MAT-005 Math Refresher, 1 cr.
Developmental studies course. Individualized course, which reviews whole numbers, fractions, decimals, percents and ratios. (Formerly MA-001H)

MAT-015 Metric System, 1 cr.
Developmental course. Reviews skills and understanding needed in the use of the metric system. P/Q grading. (Formerly MA-011H)

MAT-050 Math Improvement, 1 cr.
Developmental studies course. This course reviews basic arithmetic and pre-algebra, preparing students for success in college level math courses. (Formerly MA-002H)

MAT-051 Math Strategies, 2 cr.
Developmental studies course that reviews whole numbers, integers, fractions, decimals, percents, ratios, proportions, and graphing utilizing basic algebra.
Course Descriptions

MAT-100  Elementary Algebra, 3 cr.
This is a beginning course in algebra. Topics include operations on real numbers and algebraic expressions; solving linear equations and their application; factoring; simplifying fractional expressions; radicals and quadratic equations. Does not count toward the mathematics requirement for the AA or AS degree. (Formerly MA-102A)

MAT-101  Intermediate Algebra, 3 cr.
This course includes the basic properties of the real number system, fundamental operations on algebraic expressions, graphs of functions and relations; radicals, exponents, quadratic equations, inequalities and complex numbers. Students will learn to use graphic calculators to enhance their understanding. This course does not apply to the Math requirement for the AA or AS degree. (Formerly MA-113A)

MAT-102  Intermediate Algebra, 4 cr.
This course includes the basic properties of the real number system; fundamental operations on algebraic expressions; graphs and functions and relations; radicals; exponents; quadratic equations; graphing calculators to enhance their understanding. Prerequisite: Appropriate mathematics assessment score. Does not count toward the mathematics requirements for the AA or AS degree. (Formerly MA-108A)

MAT-110  Math for Liberal Arts, 3 cr.
This is a general survey course which includes sets; number systems; elementary algebra; exponents; equations and inequalities; fractions; ratios; proportion and variation; probability and statistics; elementary graphing; consumer mathematics; and an introduction to geometry. (Formerly MA-103A)

MAT-117  Math for Elementary Teachers, 3 cr.
Basic mathematical content pertinent to elementary teaching. Topics include problem solving, set theory, number systems and bases, number theory, informal geometry, measurement and elementary probability, and statistics. Does not count toward the mathematics requirement for the AA or A.S. degree. (Formerly MA-203A)

MAT-120  College Algebra, 3 cr.
Operation of real and complex numbers; factoring; exponents; quadratic equations; inequalities; matrices; rational functions; logarithmic functions; and graphing or functions. Prerequisite: MAT-102 or equivalent. (Formerly MA-112A)

MAT-121  College Algebra, 4 cr.
Topics include linear functions and inequalities; quadratics; conics; polynomials and rational functions; exponential and logarithmic functions; linear systems; matrices and determinants. Additional topics may include sequences, series, permutations, combinations and probability. Prerequisite: MAT-102 or equivalent. (Formerly MA-118A)

MAT-127  College Algebra & Trig, 5 cr.
Course combines college algebra and trigonometry. Algebra topics covered include functions and their graphs; solving equations and inequalities; polynomial functions; conic sections; and exponential and logarithmic functions. Trigonometry topics covered are right triangle trigonometry; unit circles; trigonometric functions; graphing; verifying identities; solving trigonometric equations; and applications of trigonometry. Prerequisite: MAT-102 or equivalent. (Formerly MA-115A - College Mathematics)

MAT-130  Trigonometry, 3 cr.
Trigonometric functions and their inverses: verifying identities; right triangle trigonometry; unit circles; radian measure; graphing; trigonometry functions; solving trigonometric equations; and applications of trigonometry. Prerequisite: MAT-102 or equivalent. (Formerly MA-114A)

MAT-140  Finite Math, 3 cr.
An applied mathematics course dealing with mathematics related to most academic disciplines. It provides introduction to matrices, linear programming, combinations, permutations, statistics, mathematics of finance and logic. (Formerly MA-153A)

MAT-156  Statistics, 3 cr.
Introductory statistics class stressing data-centered topics rather than the more traditional path from probability to formal inference. (Formerly MA-293A)

MAT-157  Statistics, 4 cr.
The use of statistics by the methods of descriptive and inferential statistics. Both single and bivariate data are analyzed. Elementary probability and normal probability distributions are studied along with hypothesis testing, linear correlation regression analysis, and analysis of variance. Prerequisite: MAT-102 or 2 years of high school algebra or equivalent. (Formerly MA-294A)

MAT-210  Calculus I, 4 cr.
Provides the student with a foundation in calculus and analytical geometry. Topics include analytical geometry; differentiation and applications of the derivative; integration and its applications. Graphics calculator is required. Prerequisite: MAT-127 or equivalent. (Formerly MA-124A)

MAT-211  Calculus I, 5 cr.
A general course in differential and integral calculus and its applications. Topics include limits and continuity; differentiation; application of differentiation; integration; logarithmic, exponential and other transcendental functions; and applications of integration. Prerequisite: MAT-127 or equivalent. (Formerly MA-125A)

MAT-217  Calculus II, 5 cr.
Continuation of MAT-211. Integration techniques, sequences, infinite series, conic sections, parametric equations, polar coordinates, vectors, cylindrical and spherical coordinates, and vector-values functions. Prerequisite: MAT-211 or equivalent. (Formerly MA-128A)

MAT-218  Calculus III, 3 cr.
Continuation of MAT-217. Explores functions of several variables; partial derivatives; directional derivatives and gradients; multiple integration; vector analysis; and a brief look at differential equations. Prerequisite: MAT-217 or equivalent. (Formerly MA-227A)

MAT-225  Differential Equations, 3 cr.
Students learn to recognize various types of differential equations and learn how their solutions behave. Topics include solving first and second order differential equations; applications; systems of equations; series solutions; existence theorems; numerical methods; and partial differential equations. (Formerly MA-233A)

MAT-770  Applied Math, 2 cr.
Mathematics as it applies to the student’s program of study. A review of whole numbers, fractions, decimals, percentages, the metric system, linear measurement and common formulas used in each particular industry. (Formerly TI-102C)

MAT-772  Applied Math, 3 cr.
Mathematics applications in automotive mechanics. (Formerly TI-124C - Related Math)

MAT-785  Agricultural Math, 2 cr.
Reviews the basic principles of elementary algebra and mathematics as they relate to basic agricultural problems. (Formerly AG-102C)
**Management**

**MGT-101 Principles of Management, 3 cr.**
Introduces modern management background, organization and principles, managerial planning and control policies and procedures of business firms. (Formerly BS-293A)

**MGT-110 Small Business Management, 3 cr.**
Practical approach to the study of establishing and operating a small business. Emphasis will be placed on discussion of case situations and on arriving at viable solutions to day-to-day operational problems. (Formerly BS-213A)

**MGT-130 Principles of Supervision, 3 cr.**
An overview of the supervisory job. Basics of supervision and management, including effective human relations skills such as communication, motivation, improving performance and leading work teams. Centers on management functions of planning, organizing, controlling and evaluating. Introduction to key supervisory techniques including delegation, appraisal and counseling. (Formerly BS-107A)

**MGT-131 Principles of Supervision, 4 cr.**
This course covers the development of supervision as a managerial directing function. Skills and personal traits of the supervisor, motivation and cooperation attitudes as they pertain to both the individual and the group. Coordinating the requirements and needs of employees and management to achieve organizational goals. (Formerly BS-127A)

**MGT-165 Principles of Quality, 3 cr.**
Principles and success factors for quality improvement for work group supervisors. Focus on skills and knowledge needed by supervisors to lead quality improvement in their work areas. Quality philosophies, concepts and improvement actions will be highlighted. Programs such as ISO 9000 and the Malcolm Baldridge Award will be discussed. Participants will prepare quality improvement plan for their work groups. (Formerly BS-127A)

**MGT-170 Human Resource Management, 3 cr.**
Students will learn each step of the process, including developing a job description; advertising; evaluating resumes; pre-screening candidates; negotiating employment agreements; planning and monitoring orientation programs for new employees; and the importance of up-to-date policies. (Formerly BS-161A/BS-222A)

**MGT-173 Training and Employee Dev, 1 cr.**
Training from employee orientation through progressive job training. Determining training objectives, conducting training and evaluating results. How supervisors plan, prepare, conduct, follow up and measure the benefits of work group training. (Formerly BS-128A)

**MGT-178 Employment Law, 3 cr.**
Study of the “legalese” of workplace law, covering hiring, firing, promoting, and disciplining employees. Students will learn proper reference checking procedures, sexual harassment issues, equal employment opportunity and affirmative action policies. (Formerly BS-193A)

**MGT-190 Employee Compensation/Benefits Management, 3 cr.**
This course focuses on monitoring and organizational benefits such as health, dental, FMLA, wage continuation, workers’ compensation and retirement programs. Students will be introduced to a market survey compensation philosophy and will also learn and practice the tools needed to implement this philosophy. The Manpower Planning Process will also be introduced with discussion of the need and importance of conducting this new survey. (Formerly BS-151A)

**Marketing**

**MKT-110 Principles of Marketing, 3 cr.**
Fundamental principles of the flow of goods and services from producer to consumer, including buying, selling, transportation, storage, finance, advertising and market information as they relate to the marketing structure. (Formerly BS-233A)

**MKT-140 Principles of Selling, 3 cr.**
Studies the concepts of selling. Includes an understanding of the customer; realizing the importance of product knowledge; securing and conducting sales presentations, analyzing and handling different types of customers; steps in selling; and the importance of maintaining good will. Personality development and principles of selling are stressed. (Formerly BS-143A)

**MKT-142 Consumer Behavior, 3 cr.**
External influences such as culture, social class and family situations; internal influences such as motivation, attitudes, lifestyles and learning; various models of consumer behavior and how consumer behavior fits into marketing strategy. (Formerly BS-229A)

**MKT-150 Principles of Advertising, 3 cr.**
Fundamentals and principles of advertising as they pertain to the marketing process. Understanding consumer motivation, identifying the target market, types of media and creation of ads are included. (Formerly BS-243A)

**MKT-155 Visual Merchandising, 4 cr.**
The principles and elements of design and their relationship to an effective display. Hands-on experience in creating effective displays and planning a visual merchandising schedule. Students learn about display materials and store layout in relation to effective selling. (Formerly BS-114A)

**MKT-162 Retail Merchandising, 3 cr.**
Techniques and procedures used in determining profits, pricing of goods, inventories and merchandise control. Typical problems faced by merchandisers are presented, analyzed and solved. (Formerly BS-218A)

**MKT-171 Retail Buying, 4 cr.**
The procedures involved in buying for a retail merchandising business. Emphasis is placed on markets, record keeping, market planning and purchasing of merchandise to cover planned sales, fashion promotions and customer wants, needs and desires. (Formerly BS-134A)

**MKT-290 Professionalism: Dex/Deca, 1 cr.**
Introduction to DECA and what the organization has to offer. The course helps the student gain a better understanding of Distributive Education Clubs of America. (Formerly BF-101A)

**MKT-291 Professionalism II: Dex/Deca, 1 cr.**
This course helps develop competent professionals in marketing management and merchandising. Delta Epsilon Chi contributes to occupational competence by promoting greater understanding and appreciation for the responsibilities of citizenship in our private enterprise system. (Formerly BF-102A)

**MKT-292 Professionalism III: Dex/Deca, 1 cr.**
Continuation of the professional development training in DECA. (Formerly BF-201A)

**MKT-293 Professionalism IV: Dex/Deca, 1 cr.**
Continuation of MKT-292 with more opportunities for professional advancement. (Formerly BF-202A)
MKT-938  On-The-Job Training, 2 cr.
Introductory work experience in the operational phases of the modern retail market. Assignments are tailored to the student’s needs, including basic merchandising, displays, cash register experience and selling to customers. Students are supervised by the coordinator of the program and assigned to work directly under a specific store manager who serves as the on-the-job trainer. (Formerly BS-126A)

Mass Media Studies

MMS-101  Mass Media, 3 cr.
An introductory course that studies mass media and society. The class includes a historical and contemporary overview of industries, professions, processes and social effects of the mass media. (Formerly BC-101A)

MMS-105  Audio Production, 3 cr.
Audio production in both radio and television. The main focus is a radio production. Class discussion and lectures focus on coordination of audio board operation and announcing; creating and producing radio commercials; familiarizing the student with the Smartcaster; and following a playlist. Lab exercises help students develop radio control-board skills, production skills, discipline and structure. (Formerly BC-203A)

MMS-115  TV Studio Production, 3 cr.
Basic operation of a television studio. Students will become familiar with the operation of equipment in the studio (cameras, floor directing, on-camera talent) and control room (directing, the character generator, audio, video). Emphasis will be on practical hands-on elements of studio production. (Formerly BC-221A)

MMS-130  Video Field Production, 3 cr.
Study of the equipment used in field/remote video productions. Students will participate in several single camera field productions, including shooting, directing and post-producing. (Formerly BC-243A)

MMS-145  Broadcast Writing, 3 cr.
An instructional workshop for developing the skills to write for audio and video. Students will contribute stories to the college television newscast and possibly supplement the stories with video. (Formerly BC-202A)

MMS-211  Advanced Video Editing, 3 cr.
This course takes students past the single-source/cuts-only editing system into advanced editing techniques. Students utilize A/B Roll/multiple source systems in addition to computer based editing systems (non-linear). (Formerly BC-223A)

MMS-225  Advanced Television Production, 3 cr.
Production of pre-scripted programs for the local cable public access station. Students will perform as crew members in various studio productions. Prerequisite: MMS-115. (Formerly BC-241A)

MMS-230  Advanced Video Production, 3 cr.
Production of advanced single and multi-camera productions. Focus on producing field programs outside the studio environment for the local cable public access channel. Programs will include college and community activities such as city council meetings. (Formerly BC-253A)

MMS-234  Radio Workshop, 4 cr.
Radio station operations and practices in the college radio station. The majority of the programming and performance of the station will be the responsibility of students in this course. Prerequisite: MMS-105. (Formerly BC-234A)

MMS-241  Public Relations & Marketing, 3 cr.
Public relations methods used for effectiveness and the art of persuasion throughout the organization of corporate communications. (Formerly BC-112A)

MMS-298  Portfolio Preparation, 0 cr.
The portfolio consists of the student's traditional copy resume, audio demotape and video resume tape prepared for job application requests. (Formerly BC-240A)

MMS-299  Sophomore Portfolio, 0 cr.
A portfolio completed by each candidate for graduation in the Broadcast Media Specialist program will include a resume, resume videotape and/or audio demo tape. Materials are prepared and completed as if the student is applying for a job in the television or radio industry. (Formerly BC-200A)

MMS-928  Independent Study, 1 cr.
Independent study or a special project in broadcasting. (Formerly BC-150A)

MMS-941  Practicum, 2 cr.
Students accumulate 140 or more hours of work-related experience at broadcasting institutions or other approved facilities. Students gain specific skills in a practical job setting. (Formerly BC-212/232A)

Motorcycle Technology

MOT-128  Motorcycle Engine 2&4 Stroke, 2 cr.
Construction and design of motorcycle engines, both two- and four-stroke. Correct service procedures, troubleshooting, failure analysis and advanced theory are included. Prerequisite: first semester of program. (Formerly MM-128C)

MOT-129  Motorcycle Eng 2&4 Stroke Lab, 2 cr.
Engine disassembly, reassembly, operation of various motorcycle and ATV engines. Includes adjustment and testing of engines. Prerequisite: First semester of program. Co-requisite: MOT-128. (Formerly MM-129C)

MOT-139  Motorcycle Fuel Systems, 3 cr.
Motorcycle fuel systems including carburetion, fuel injection and oil injection. Troubleshooting, testing, adjustments and disassembly/reassembly are covered. Proper service procedures are discussed, demonstrated and practiced. Lecture and laboratory. Prerequisite: first two semesters of program. (Formerly MM-139C)

MOT-143  Drive Systems/Chassis/Suspension, 3 cr.
Theory and operation of Motorcycle Drive Systems, chassis, and suspension. Disassembly, inspection, reassembly, troubleshooting, adjustment and repair. Lecture and lab. (Formerly MM-143C)

MOT-146  Ignition/Electrical Systems, 3 cr.
Study of the construction, principles of operation and design of motorcycle ignition and electrical systems. (Formerly MM-146C)

MOT-200  Motorcycle/ATV Tune Up/Maintenance, 2 cr.
This course includes tune up procedures for both 2 and 4 stroke Motorcycle and ATV’s.

MOT-202  ATV Systems, 3 cr.
Introduction to ATV’s and all of their systems.

MOT-210  Adv Driveability & Troubleshooting, 3 cr.
This course will better prepare the student for the real life driveability and troubleshooting problems that they will encounter in the field.
Course Descriptions

MOT-220 Advanced Electrical Diagnosis/Troubleshooting, 3 cr.
Advanced electrical diagnosis and troubleshooting as it pertains to the Motorcycle and Small Engine Industry.

MOT-230 Advanced Fuel Systems, 3 cr.
Advanced fuel system diagnosis, troubleshooting, and tuning.

MOT-240 Dyno Analysis, 2 cr.
This course includes Dyno usage, data analysis, and tuning.

MOT-250 Outdoor Power Equipment, 3 cr.
An introduction to Outdoor Power Equipment.

MOT-255 Performance Engine Tuning, 2 cr.
Performance Engine Tuning as it applies to the Motorcycle and ATV.

MOT-260 Shop Management, 3 cr.
Shop Management as it applies to the Motorcycle and Small Engine Industry.

MOT-270 Introduction to Diesel, 2 cr.
A study of the basic diesel engine used in small horsepower applications. Diesel fuel systems, turbo charging, diesel engine maintenance, and troubleshooting.

MOT-275 Introduction to Hydraulics, 2 cr.
A study of the many hydraulic systems and components used on modern equipment. Emphasis is placed on hydraulic theory and system analysis.

MOT-910 Cooperative Work Experience, 4 cr.
Student is involved in a supervised cooperative work experience in a dealership. (Formerly MM-127C)

MOT-932 Internship, 2 cr.
On-the-job experience at a motorcycle repair facility as a technician, part and service person, or salesperson. The student is evaluated by the job supervisor and the instructor. Prerequisite: completion of the first year of the program. (Formerly MM-226C)

Marine and Small Engine Technology

MSE-143 Small Engines Theory, 3 cr.
Basic two- and four-stroke engine theory, design and construction. All basic systems are studied, as well as troubleshooting, failure analysis and repair procedures. Service literature, warranties and engine identification are covered. (Formerly SM-143C)

MSE-146 Small Engines Laboratory, 3 cr.
Complete disassembly and reassembly of modern engines, troubleshooting, failure analysis and proper repair techniques. Hands-on testing and inspection of engine systems. Corequisite: MSE-143. (Formerly SM-146C)

MSE-151 Shop Safety and Procedures, 1 cr.
Safe shop practices and procedures, including safe equipment operation, proper tool usage, importance of personal protective gear and how to handle emergency situations. (Formerly SM-151C)

MSE-152 Dr System Fundamentals, 2 cr.
Introduction to the various types of drives which may be encountered. Construction, operation, maintenance and repair of outdoor power and other systems including transmissions; clutches; belt drives; sprockets and chain drives; and hydrostatic drives. Assembly, disassembly, inspection, troubleshooting and repair of these systems is covered. Lecture and laboratory. (Formerly SM-152C)

MSE-153 Fundamentals of Electricity, 3 cr.
Basic electrical theory used in the small engine and marine field. Study of Ohm’s Law, electrical symbols, problem solving, types of circuits, usage of a VOM and other electrical test equipment. Lecture and laboratory. (Formerly SM-153C)

MSE-158 Snowmobile Systems, 2 cr.
Snowmobile systems including clutches, suspensions, engines, tracks and other components are studied. Proper service techniques, troubleshooting, assembly and disassembly are covered along with a unit on performance work. Lecture and laboratory. (Formerly SM-158C)

MSE-164 Marine Engine 2 & 4 Stroke, 2 cr.
Construction and design of two- and four-stroke marine engines. Correct service procedures, troubleshooting, failure analysis and advanced theory are covered. Prerequisite: first semester of program. (Formerly SM-164C)

MSE-165 Marine Engine 2 & 4 Stroke Lab, 2 cr.
Corresponding lab to Marine Engines Two and Four Stroke Theory. Hands-on testing and inspection of marine engines. (Formerly SM-165C)

MSE-169 Marine Dr Systems T/L, 3 cr.
This course covers operation and construction of Marine Sterndrives, Inboard Drive Systems and Outboard Gear Cases. Also covered will be disassembly, assembly, inspection, troubleshooting, failure analysis, identification, rebuilding drives, adjustments procedures, advanced theory and repair procedures as well as performance testing and propeller theory. (Formerly SM-169C)

MSE-173 Marine Fuel Systems, 3 cr.
Marine fuel systems including carburetion, fuel injection and oil injection are studied. Troubleshooting, testing, adjustments, assembly and disassembly are practiced. Proper service procedures discussed and demonstrated. Lecture and laboratory. Prerequisites: first two semesters of program. (Formerly SM-173C)

MSE-183 Personal Water Craft Systems, 3 cr.
Theory and hands-on lab for all systems in personal watercraft including jet pumps, engines and steering systems. Repair, troubleshooting and service procedures are covered. Lecture and laboratory. Prerequisite: first two semesters of program. (Formerly SM-183C)

MSE-189 Marine Electrical Systems T/L, 3 cr.
This course will cover the principles of operation and construction of various components in the electrical systems of a Boat such as Ignition Systems, Starting Systems, Charging Systems, Tilt and Trim Systems, along with other accessories used in the Marine industry. Proper testing, troubleshooting, disassembly/reassembly, and installation of electrical components are also covered. (Formerly SM-189C)

MSE-932 Internship, 4 cr.
On-the-job experience at a marine or small engine repair facility as a technician, part and service person, or salesperson. The student is evaluated by the job supervisor and the instructor. Prerequisite: completion of first year of program. (Formerly SM-126/226C)

Massage Therapy

MST-101 Health and Wellness, 1 cr.
This course will provide self care techniques to promote wellness for the Massage Therapist profession. (Formerly MT-101C)
Course Descriptions

MST-103  Intro to Swedish Massage, 3 cr.
Provides a basic foundation for the courses of study in the Massage Therapy program. (Formerly MT-103C)

MST-104  Anatomy & Physiology - MT, 4 cr.
Provides knowledge of the anatomical structures, pathology, functions, and physiological process of the human body (Formerly MT-104C)

MST-106  MT Practical Applications, 3 cr.
Designed to provide knowledge of medical terminology, universal precautions, sanitary procedures, infectious diseases and nutrition. (Formerly MT-106C)

MST-110  Pathology for Massage Therapy, 2 cr.
This course is the study of the nature and causes of disease as related to structure and functions of the body. The massage therapist focus is on maintaining health or a balanced state of physical, emotional, social well being called homeostasis. The students will be introduced to basic pharmacology terminology with prescriptions medications, recreational drugs, herbs and natural supplements. (Formerly MT-112C)

MST-111  Ethics/Professionalism, 2 cr.
Emphasizes the ethical behavior in the massage therapy profession and teaches students to establish professional boundaries and acceptable standards of documentation. The course helps students understand and apply the Standards of Practice established by professional massage organizations. (Formerly MT-112C)

MST-112  Kinesiology/Anatomy in Clay, 3 cr.
The study of the muscles of the body and their actions, origins, and insertion sites. The course will entail the building of major muscle groups of the body in clay and placing them on the correct site of the anatomical skeleton. (Formerly MT-113C)

MST-121  Reflexology, 1 cr.
This course includes the modality pertaining to zones and reflex areas in the hands and feet. The students will study how the reflexes correspond to distinct parts of the body. (Formerly MT-139C)

MST-123  Sport Massage, 3 cr.
This course provides the skills and techniques to be used with athletes and individuals with sport injuries. Includes an introduction to acupuncture. (Formerly MT-123C)

MST-132  Introduction to Spa Services, 2 cr.
An introduction of the skills and techniques to be used with Shiatsu, Reiki, Aromatherapy, Hot Stone Therapy, Ear Candling and Spa Therapy. (Formerly MT-132C)

MST-133  Massage & Abuse/Geriatrics/Pre, 3 cr.
An instruction of the skills and techniques to be used with clients that have experienced physical abuse, elderly clients, pregnancy clients and infants. (Formerly MT-133C)

MST-140  Spa Services, 1 cr.
This course will provide the skills and technique to be used with Shiatsu, Reiki, Aromatherapy, Hydrotherapy, Hot Stone Therapy, Ear Candling and Spa Therapy. (Formerly MT-140C)

MST-141  Geriatric Massage, 1 cr.
This course will provide the skills and techniques to use with elderly clients. (Formerly MT-141C)

MST-143  Intermediate Massage, 3 cr.
This course is designed to expand on skills developed in the course Introduction to Swedish Massage. Students will pair up and the classes will consist of hands on applications of body massage techniques. (Formerly MT-143C)

MST-149  Pregnancy/Infant Massage, 1 cr.
This course will provide the skills and techniques to use with the pregnant and infant clients. (Formerly MT-149C)

MST-151  Business - Massage Therapy, 1 cr.
An introduction to business practices for the massage therapist as an independent and as an employee. Students will be introduced to business structures and organizations, business plans, bookkeeping, legal records, marketing, professional insurance, financing, and business law. Application of principles of stress reduction and time management will be discussed. (Formerly MT-151C)

MST-152  Chair Massage, 1 cr.
The course provides professional massage techniques of the head, neck, shoulders, arms, back and hips of a client seated in a specially designed chair for massage. The student will be trained to do a highly visible branch of professional massage, which is done in shopping malls, airports, convention centers, supermarkets, and the workplace. (Formerly MT-111C)

MST-153  Deep Tissue Massage, 3 cr.
This course is designed to expand on skills developed in the Introduction to Swedish Massage and Intermediate Massage. Students will incorporate all massage techniques learned in the past. (Formerly MT-153C)

MST-155  Ethics - Massage Therapy, 1 cr.
This course assists students to understand and apply the Standards of Practice established by professional massage organizations. The course emphasizes ethical behavior in the massage therapy profession and teaches students to establish professional boundaries and acceptable standards of documentation. (Formerly MT-159C)

MST-810  Massage Clinic, 1 cr.
This course is designed for classroom lab supervised practical experiences in body massages applications. The students will set up appointments for outside individuals to apply techniques for full body massages. (Formerly MT-161C - Clinic)

Music-Applied

MUA-101  Applied Voice, 1 cr.
Private applied instruction that provides students the opportunity to develop and refine performing skills. (Formerly MU-141A)

MUA-119  Class Piano, 1 cr.
Instruction on piano keyboard in a classroom setting. No previous study is required for enrollment in this entry-level course. Pianos are provided for practice and performance. (MU-207A - Beginning Piano Class)

MUA-120  Applied Piano, 1 cr.
Private applied instruction that provides students the opportunity to develop and refine performing skills on this instrument. (Formerly MU-161A)

MUA-124  Applied Guitar, 1 cr.
Private applied instruction that provides students the opportunity to develop and refine performing skills on this instrument. (Formerly MU-214A)
MUA-128  Applied String Bass, 1 cr.
Private applied instruction that provides students the opportunity to develop and refine performing skills on this instrument. (Formerly MU-224A)

MUA-150  Applied Tuba, 1 cr.
Private applied instruction that provides students the opportunity to develop and refine performing skills on this instrument. (Formerly MU-247A)

MUA-152  Applied Bassoon, 1 cr.
Private applied instruction that provides students the opportunity to develop and refine performing skills on this instrument. (Formerly MU-287A)

MUA-154  Applied Clarinet, 1 cr.
Private applied instruction that provides students the opportunity to develop and refine performing skills on this instrument. (Formerly MU-257A)

MUA-156  Applied Flute, 1 cr.
Private applied instruction that provides students the opportunity to develop and refine performing skills on this instrument. (Formerly MU-257A)

MUA-158  Applied French Horn, 1 cr.
Private applied instruction that provides students the opportunity to develop and refine performing skills on this instrument. (Formerly MU-237A)

MUA-160  Applied Oboe, 1 cr.
Private applied instruction that provides students the opportunity to develop and refine performing skills on this instrument. (Formerly MU-277A)

MUA-162  Applied Saxophone, 1 cr.
Private applied instruction that provides students the opportunity to develop and refine performing skills on this instrument. (Formerly MU-205A)

MUA-164  Applied Trombone, 1 cr.
Private applied instruction that provides students the opportunity to develop and refine performing skills on this instrument. (Formerly MU-227A)

MUA-166  Applied Trumpet, 1 cr.
Private applied instruction that provides students the opportunity to develop and refine performing skills on this instrument. (Formerly MU-217A)

MUA-174  Single Reed Methods, 2 cr.
The pedagogy relevant to the elementary, beginning and intermediate student/musician studying the single reed instruments (clarinet and saxophone). (Formerly MU-252A)

MUA-180  Applied Percussion, 1 cr.
Private applied instruction that provides students the opportunity to develop and refine performing skills on this instrument. (Formerly MU-297A)

MUS-100  Music Appreciation, 3 cr.
Studies the elements and history of music with concentration on critical listening skills. Includes a review of music history; styles; genres; form and content; schools of composers; and social and historical events of the past and present that influence music selections. (Formerly MU-103A)

MUS-120  Music Theory I, 3 cr.
Studies the fundamental principles of traditional theory including melody, rhythm and harmony. Key signatures, intervals and triads are also included. This is an entry level course for music majors. (Formerly MU-113A)

MUS-121  Music Theory II, 3 cr.
Continuation of MUS120 which includes diatonic material, cadences, chord progression, inversions, chord spelling and part writing. (Formerly MU-123A)

MUS-135  Music Theory Lab I, 1 cr.
Introduces the solfeggio system of music reading. Both tonal and rhythmic patterns are included in the sight reading exercises as well as principles of key relationships, intervals and triads. (Formerly MU-111A)

MUS-136  Music Theory Lab II, 1 cr.
Continuation of principles of key relationships, intervals, triads and improvement of sight reading musical notation. All aspects of rhythmic and melodic structure are studied and practiced. (Formerly MU-121A)

MUS-140  Concert Choir, 0 cr.
Provides an opportunity for talented singers to rehearse and perform choral music of many styles. There is no required audition. (Formerly MU-109A)

MUS-145  Concert Band, 1 cr.
A music ensemble which studies, rehearses and performs literature for bands and wind ensembles. There are no required auditions. (Formerly MU-153A)

MUS-151  Pop Singers, 1 cr.
Pop Singers are the college show choir. This group provides an opportunity for talented singers to perform choral music with choreography. Auditions are held at the beginning of the fall and spring semesters. (Formerly MU-119A)

MUS-153  Jazz Singers, 0 cr.
Jazz Singers are the college vocal jazz choir. This group provides an opportunity for talented singers to rehearse and perform the close harmonies of vocal jazz repertoire. Auditions are held at the beginning of the fall and spring semesters. (Formerly MU-219A)

MUS-155  Men’s Chorus, 0 cr.
Rehearsal and performance of selected men’s chorus selections with concerts and special occasion performances. Open auditions. May be repeated for credit. (Formerly MU-229A)

MUS-156  Women’s Chorus, 1 cr.
Rehearsal and performance of selected women’s chorus selections with concerts and special occasion performances. Open auditions. May be repeated for credit. (Formerly MU-239A)

MUS-166  Jazz Combo Improvisation, 1 cr.
Techniques of improvisation through rehearsal and performance of jazz literature through the jazz combo or small group ensemble. (Formerly MU-144A)

MUS-170  Jazz Band, 0 cr.
Rehearsal and performance of jazz literature, with an annual tour, concerts and special occasion performances. Open auditions. (Formerly MU-142A)

MUS-175  Woodwind Ensemble, 0-1 cr.
Rehearsal and performance of selected woodwind ensemble works with concerts and special occasion performances. Open auditions. May be repeated for credit. (Formerly MU-159A)
MUS-176  Brass Ensemble, 0 cr.
Rehearsal and performance of selected brass ensemble works with concerts and special occasion performances. Open auditions. May be repeated for credit. (Formerly MU-169A)

MUS-177  Percussion Ensemble, 0 cr.
Rehearsal and performance of selected percussion works with concerts and special occasion performances. Open auditions. May be repeated for credit. (Formerly MU-179A)

MUS-178  Handbell Ringers, 0 cr.
Ensemble rehearsal of a wide variety of handbell music and study of the techniques of proper handbell ringing. Auditions are held at the beginning of the fall and spring semesters. (Formerly MU-131A)

MUS-187  Percussion Methods, 2 cr.
The pedagogy relevant to the elementary, beginning and intermediate student/musician studying the percussion instruments (drums and mallets). (Formerly MU-262A)

MUS-190  Jazz Improvisation, 1 cr.
Teaches improvisation through various musical styles through combo or small group ensemble. Teaches students the art of instant composition. (Formerly MU-115A)

MUS-200  Music History I, 3 cr.
A survey of Western music literature through perceptive listening of significant forms and styles of music of Western civilization, from antiquity to the mid 18th century. Emphasis on the compositional and stylistic evolution of Western Music as evidence in the works of selected pivotal composers. Recommended prerequisites: Music Appreciation or Music Theory I. (Formerly MU-104A)

MUS-201  Music History II, 3 cr.
A survey of Western music. Emphasis on the compositional and stylistic evolution of Western music as evidenced in the works of selected pivotal composers. (Formerly MU-105A)

MUS-205  Jazz History & Appreciation, 3 cr.
Studies the elements and history of jazz music with concentration on critical listening skills. Includes a review of jazz history, styles, genres, form and content, composers, and social and historical events of the past and present that influence music selections. (Formerly MU-213A)

MUS-220  Music Theory III, 3 cr.
Continuation of MUS-121 including the study of advanced triadic structure and synthetic scales. Emphasis on analysis. (Formerly MU-201A)

MUS-221  Music Theory IV, 3 cr.
Continuation of MUS221. (Formerly MU-223A)

MUS-235  Music Theory Lab III, 1 cr.
Continuation of principles of key relationships, intervals, triads and improvement of sight reading musical notation. All aspects of rhythmic and melodic structure are studied and practiced. Prerequisite: MUS-136. (Formerly MU-235A)

MUS-236  Music Theory Lab IV, 1 cr.
Continuation of principles of key relationships, intervals, triads and improvement of sight reading musical notations. All aspects of rhythmic and melodic structure are studied and practiced. Prerequisite: MUS-235. (Formerly MU-221A)

MUS-250  Musical Play Production, 1 cr.
Production of a musical play. Special attention will be given to singing, acting, set work, props, sound reinforcement and lighting. Open auditions. (Formerly MU-185A)

Computer Networking

NET-122  Computer Hardware Basics, 3 cr.
How to prepare and evaluate system specifications, troubleshoot minor hardware problems, configure and install hardware, manage memory, modify and use diagnostic software. (Formerly IT-109A)

NET-140  Networking Essentials, 4 cr.
Foundational training in local area networking technology serving as a general introduction to LANs, WANs and the internet. Topics include IP, network interface cards (NIC), cabling (coax, STP, UTP and fiber), ARCNET, network protocols, hubs, routers and bridges. (Formerly IT-115A)

NET-142  Network Essentials, 3 cr.
Network Essentials introduces the networking field. The course focuses on network terminology and protocols, local area networks (LAN), wide-area networks (WANs), Open System Interconnect (OSI) models cabling, cabling tools, routers, router programming, Ethernet, Internet Protocol (IP) addressing, and network standards. Instruction and training are provided in the proper care, maintenance, and use of networking software tools, and equipment and all local, state, and federal safety, building, and environmental codes and regulations. (3/0) (Formerly IT-109A)

NET-212  Cisco Networking, 3 cr.
Designing, building and maintaining computer networks. CISCO Networking Academy program. (Formerly IT-103A)

NET-222  Cisco Routers, 3 cr.
Designing, building and maintaining computer networks. CISCO Networking Academy program can lead to CCNA certification, Prerequisite: NET212. (Formerly IT-103A)

NET-232  Cisco Switches, 3 cr.
Designing, building and maintaining computer networks. Cisco Networking Academy program: can lead to CCNA certification. Prerequisites: NET212 and NET222. (Formerly IT-123A)

NET-242  Cisco Wide Area Networks (wan), 3 cr.
Designing, building and maintaining computer networks. Cisco Networking Academy program: can lead to CCNA certification. Prerequisites: NET212, NET222, NET232. (Formerly IT-133A)

NET-304  Windows Workstation Operating Systems, 4 cr.
Installing, configuring and administering Microsoft Windows 2000 Professional. (Formerly IT-118A)

NET-314  Windows Server, 4 cr.
Installing, configuring and administering Microsoft Windows 2000. (Formerly IT-120A)

NET-330  Windows 2003 Networking, 4 cr.
How to support the various features of the Microsoft Information Server (IIS). Students will learn how to install, configure and implement all components that comprise IIS. Hands-on experience in setting up a web site is included. (Formerly IT-216A)

NET-331  Win 2000 Networking Infrastructure, 4 cr.
Implementing and administering a Microsoft Windows 2000 Directory Network infrastructure. (Formerly IT-122A)

NET-334  Implement Windows Network Infra., 4 cr.
Targeted towards IT professionals who implement, manage, and troubleshoot existing network and server environments based on the Microsoft Windows 2000 operating system. It helps students prepare for MS certification which is a core requirement of the Microsoft Certified Systems Administrator certification. (Formerly IT-124A)
NET-340 Win 2000 Active Directory, 4 cr.
Implementing and Administering a Microsoft Windows 2000 Directory Services Infrastructure. (Formerly IT-217A)

NET-354 Windows Security, 4 cr.
Designing Security for Microsoft Windows 2000 Network. (Formerly IT-214A)

Designing a Microsoft Windows 2000 Directory Services infrastructure. (Formerly IT-219A)

NET-374 Design Windows Network Infrastructure, 4 cr.
Designing a Microsoft Windows 2000 Network infrastructure.

NET-620 Internet Security Accelerator, 4 cr.

NET-621 Designing Security, 4 cr.
Security for a Microsoft Windows 2000 network. (Formerly IT-221A)

NET-653 Microsoft Exchange Server, 4 cr.
Designed to simulate the day-to-day activities and responsibilities of a Microsoft Exchange Administrator, the student will learn the main functions of the Microsoft Exchange server and how to plan and install Microsoft Exchange in a single-site environment. Multi-site environments will also be reviewed. (Formerly IT-208A)

NET-712 SQL Database, 4 cr.
Knowledge and skills required to install, configure, administer and troubleshoot Microsoft SQL Server client/server database management system. (Formerly IT-227A)

NET-726 Introduction to Networking, 1 cr.
Businesses, schools, and other organizations are becoming increasingly reliant on computer networks, which explains why workers with networking skills are in high demand. If you’d like to learn the fundamentals of computer networking in terms you can easily understand, this course is for you. Learn why networks have become so important, how software and hardware makes networking possible, and how networks function. This course will give you the foundation you need to begin training for CCNA Certification or employment in a computer networking career. (Formerly BU-128A)

NET-727 Intermediate Networking, 1 cr.
Learn real-world applications for the concepts you learned in Introduction to Networking. You’ll gain a full understanding of almost every aspect of networking technology, including hot topics such as virtual private networks, security, and Internet connectivity. Completion of this course and its prerequisite should serve as a springboard for a career in computer networking or training for CCNA Certification. (Formerly BU-127A)

NET-729 Network + Certification Prep, 1 cr.
This course will teach you everything you need to know to take and pass the challenging Network+ certification exam and become an excellent network technician. You’ll learn about topologies, the OSI Seven-Layer model, protocol suites, modern network operating systems, network hardware, cabling standards, remote connectivity, Internet connections, network troubleshooting, and more. Network+ certification also counts as one of the elective exams for the Microsoft Certified Systems Administrator (MCSA) certification. (Formerly BU-129A)

NET-910 Co-op Work Experience, 3 cr., 5 cr.
Supervised work experience in the information technology field. (Formerly IT-139/140A)

Parts Distribution & Inventory Control

PAR-113 Parts Catalog + Lab, 3 cr.
An overview of major automotive parts systems, the reading of parts lists, catalogs, price sheets and exploded views will be covered. Identification of manufacturer and their products. Students will gain hands-on experience in cataloging parts. Lecture and laboratory. (Formerly PT-113C)

PAR-123 Parts System + Lab, 4 cr.
This course develops skills in the operation of a parts store or automotive dealership parts department. Emphasis is on jobber catalogs, use of computer cataloging, invoice processing and parts sales. Students learn to handle purchase orders, repair requests and monthly statements. Lecture and laboratory. (Formerly PT-123C)

PAR-124 Inventory Control & lab, 3 cr.
A study of various inventory control systems used by the aftermarket industry. Emphasis is on the use of state-of-the-art computer inventory system. Students learn to check inventory, determine slow moving stock, ordering new stock, and arrangement of stock. Lecture and laboratory. (Formerly PT-124C)

Physical Education Activities

PEA-106 Archery I, 1 cr.
Lecture and laboratory course designed to cover the rules, history, strategy and skill techniques of archery and provide students time to practice as well as test their skill level and knowledge of the activity. (Formerly PE-117A)

PEA-117 Bowling I, 1 cr.
Lecture and laboratory course designed to cover the basic principles and skill techniques involved in bowling. (Formerly PE-137A)

PEA-123 Circuit Training, 1 cr.
This course is designed to cover the principles and skill techniques involved in circuit training. Alternating between resistance training, cardiovascular and flexibility exercises allows for simultaneous improvement in muscular strength and endurance as well as flexibility.

PEA-125 Indoor Cycling I, 1 cr.
This course is an indoor cycling aerobics class. This course introduces students to a low-impact, cardiovascular workout using stationary bicycles to improve current health and fitness levels.

PEA-130 Downhill Skiing I, 1 cr.
Designed to give the student the opportunity to enjoy downhill skiing, including academic theory and laboratory activities. (Formerly PE-181A)
Course Descriptions

PEA-134 Golf I, 1 cr.
Lecture and laboratory course designed to cover the basic principles and skill techniques involved in golf. (Formerly PE-127A)

PEA-137 Lifeguard Training I, 1 cr.
Explanation, demonstration, practice and review of skills required of lifeguards. American Red Cross certification is an option. (Formerly PE-187A)

PEA-143 Physical Conditioning I, 1 cr.
This is an introductory course designed to provide the physical fitness basic skills to assist students in their preparation for the minimum physical fitness requirements in the Criminal Justice field. (Formerly PE-129A)

PEA-146 Phys. Fitness I, 1 cr.
Develops an individual wellness program with emphasis on cardiovascular and muscular fitness and provides the student with periodic fitness evaluations. (Formerly PE-101A)

PEA-158 Scuba Diving I, 1 cr.
Basics for certification. Includes snorkeling, ascents and descents, breathing, decompression tables. NAUI certification is an option. (Formerly PE-167A)

PEA-164 Swimming I, 1 cr.
Introductory course covering front crawl, back crawl, elementary backstroke, sidestroke, and breaststroke. (Formerly PE-177A)

PEA-176 Tennis I, 1 cr.
Lecture and laboratory course designed to cover the rules, history, strategy and skill techniques of tennis and provide students time to practice as well as test their skill and knowledge of the activity. (Formerly PE-147A)

PEA-178 Volleyball I, 1 cr.
Lecture and laboratory course designed to cover the rules, history, strategy and skill techniques of volleyball and provide students time to practice as well as test their skill and knowledge of the activity. (Formerly PE-157A)

PEA-187 Weight Training I, 1 cr.
Lecture and laboratory course designed to cover the basic principles and skill techniques involved in weight training. (Formerly PE-191A)

PEA-197 Body Sculpt and Tone, 1 cr.
To provide an opportunity for students to improve their overall muscular strength and endurance through resistance training. A variety of exercises will be presented utilizing resistance bands, body bars, dumbbells, and fitness balls.

PEA-230 Downhill Skiing II, 1 cr.
Continuation of PEA130. (Formerly PE-182A)

PEA-244 Physical Conditioning II, 1 cr.
This course is a continuation of Physical Conditioning. This course will continue to provide the physical fitness skills needed to assist the student in their preparation for the minimum physical fitness requirements in the Criminal Justice field. (Formerly PE-139A)

PEA-246 Physical Fitness II, 1 cr.
Continuation of PEA146. (Formerly PE-201A)

PEA-287 Weight Training II, 1 cr.
Lecture and laboratory course designed to increase knowledge, understanding and skill techniques involved in weight training. Continuation of PEA187. (Formerly PE-291A)

PEA-292 Physical Conditioning III, 1 cr.
This course is a continuation of Physical Conditioning III. This course will continue to provide the physical fitness skills needed to assist students in their preparation for the minimum physical fitness requirements in the Criminal Justice field. (Formerly PE-149A)

PEA-294 Weight Training III, 1 cr.
Lecture and laboratory course designed to cover the advanced principles and skill techniques involved in weight training. (Formerly PE-292A)

Coaching/Officiating

PEC-101 Intro to Coaching, 3 cr.
This four-part course includes coaching theory, sports medicine, sports psychology and sports physiology. It leads to coaching authorization for the State of Iowa as a junior high or senior high coach. (Formerly PE-233A)

PEC-110 Coaching Ethics, Techniques, & Theory, 1 cr.
Techniques and theory of coaching interscholastic athletics (Formerly PE-241A)

PEC-115 Athletic Development & Human Growth, 1 cr.
Human growth and development in children and youth in relation to physical activity. (Formerly PE-251A)

PEC-120 Body Structure & Function, 1 cr.
The structure and function of the human body in relation to physical activity. (Formerly PE-261A)

PEC-126 Athletic Injury Prevention, 2 cr.
Course provides a knowledge and understanding of the prevention, care and rehabilitation of athletic injuries. (Formerly PE-271A)

PEC-128 Care & Prevent Athl. Injuries, 3 cr.
Basic recognition, prevention, care and rehabilitation of athletic injuries. Evaluation of protective devices, nutrition and conditioning are included. (Formerly PE-223A)

PEC-160 Sports Officiating, 2 cr.
Principles and standards, rules, mechanics and procedures for officiating competitive sports. (Formerly PE-222A)

General Physical Education and Health

PEH-102 Health, 3 cr.
Study of the physical, mental and social dynamics of health with attention to the development of wholesome attitudes and living habits. Students learn basic information, making choices, and application of steps toward establishing a healthier lifestyle. (Formerly PE-203A)

PEH-141 First Aid, 2 cr.
Basic lifesaving techniques as outlined by the American Red Cross and CPR as outlined by the American Heart Association. (Formerly PE-212A)

PEH-142 First Aid, 3 cr.
Course designed to teach basic lifesaving techniques, as outlined by the American Red Cross, and CPR, as outlined by the American Heart Association. (Formerly PE-213A)

PEH-161 Intro Phys Ed, 2 cr.
Introduction to the field of physical education with an overview of the aims, objectives, foundations, philosophies, history and basic concepts of organization and administration. (Formerly PE-202A)
PEH-225 Healthy Lifestyles Management, 3 cr.
Living a healthy lifestyle, a basic overview of fitness activities, the health benefits of fitness activities, nutrition and stress. Each unit contains basic information, choices and application toward establishing a healthier lifestyle. (Formerly PE-123A)

PEH-230 Coping With Stress, 3 cr.
Introduction to stress and stress management. The emotional and physical basis of stress, effects of stress, coping strategies and stressors during childhood, adolescence and adulthood. (Formerly PE-133A)

Physical Education Training

PET-105 Basic Athletic Training, 3 cr.
Introduction to the history and development of athletic training as a medical profession. Introduction to methods of athletic training including injury recognition, the prevention and care of athletic injuries and emergency care are studied. Competencies in taping and wrapping techniques are included. (Formerly PE-109A)

PET-110 Intro to Athletic Training, 2 cr.
The history and development of athletic training as a medical profession. Introduction to injury recognition, prevention of athletic injuries, lab techniques and therapeutic modalities utilized in athletic training. (Formerly PE-102A)

PET-120 Biomechanics, 3 cr.
The kinetic and kinematic principles of human movement and the application of this movement to physical education, athletics and injury rehabilitation. (Formerly PE-113A)

PET-130 Athletic Training Techniques, 2 cr.
Introduction to the basic clinical skills of the student athletic trainer as well as the policies and procedures pertaining to the discipline of athletic training. Skills are taught from each domain of athletic training. (Formerly PE-116A)

PET-140 Athletic Training Practicum I, 1 cr.
Supervised athletic event and practice coverage as an athletic trainer. (Formerly PE-126A)

PET-150 Athletic Training Practicum II, 1 cr.
Supervised athletic event and practices coverage as an athletic trainer. (Formerly PE-136A)

PET-171 Athletic Training Practicum III, 1 cr.
Continuation course for students planning to transfer to an accredited institution for athletic training education. Course is based in the athletic training room where the student continues to complete more advanced competencies. (Formerly PE-146A)

PET-181 Athletic Training Practicum IV, 1 cr.
Exposure to the general working conditions of the Certified Athletic Trainer. Experiences will include a variety of locations and exposure to sports medicine information management and administrative duties of the Athletic Trainer. Course will include an immersion period with a single sport and responsibilities specific to that sport.

Intercollegiate Physical Education

PEV-110 Varsity Baseball, Fall, 1 cr.
Study of basic and advanced fundamentals. (Formerly PE-111A)

PEV-115 Varsity Baseball, 1 cr.
Study of basic and advanced fundamentals as well as participation in intercollegiate baseball. (Formerly PE-204A)

PEV-121 Varsity Basketball, Men, 1 cr.
Study of basic and advanced fundamentals as well as participation in intercollegiate basketball. (Formerly PE-131A)

PEV-122 Varsity Basketball, Women, 1 cr.
Study of basic and advanced fundamentals as well as participation in intercollegiate basketball. (Formerly PE-151A)

PEV-140 Varsity Golf, 1 cr.
Study of basic and advanced fundamentals as well as participation in intercollegiate golf. (Formerly PE-141A)

PEV-160 Varsity Softball, 1 cr.
Study of basic and advanced fundamentals as well as participation in intercollegiate softball. (Formerly PE-161A)

PEV-170 Varsity Volleyball, 1 cr.
Study of basic and advanced fundamentals as well as participation in intercollegiate volleyball. (Formerly PE-171A)

PEV-210 Varsity Baseball II, Fall, 1 cr.
Study of basic and advanced fundamentals. (Formerly PE-112A)

PEV-215 Varsity Baseball II, 1 cr.
Study of basic and advanced fundamentals as well as participation in intercollegiate baseball. (Formerly PE-211A)

PEV-221 Varsity Basketball II, Men, 1 cr.
Study of basic and advanced fundamentals as well as participation in intercollegiate basketball. (Formerly PE-132A)

PEV-222 Varsity Basketball, Women, 1 cr.
Study of basic and advanced fundamentals as well as participation in intercollegiate basketball. (Formerly PE-132A)

PEV-240 Varsity Golf II, 1 cr.
Study of basic and advanced fundamentals as well as participation in intercollegiate golf. (Formerly PE-152A)

PEV-260 Varsity Softball II, 1 cr.
Study of basic and advanced fundamentals as well as participation in intercollegiate softball. (Formerly PE-162A)

PEV-270 Varsity Volleyball II, 1 cr.
Study of basic and advanced fundamentals as well as participation in intercollegiate volleyball. (Formerly PE-172A)

PEV-900 Field Trip, 0 cr.
Supplemental enrichment courses related to the Social Sciences which includes special projects. P/Q grading. (Formerly was SS-121A)

Philosophy

PHI-101 Intro to Philosophy, 3 cr.
Considers broad fundamental ideas about knowledge, the nature of reality, human nature and society. It is also concerned with words and concepts, their meaning and their logical relationship to each other. (Formerly PH-103A)

PHI-105 Intro to Ethics, 3 cr.
This introductory course examines contemporary ethical conflicts and provides an understanding of the language, concepts and traditions of ethics. (Formerly PH-104A)

PHI-142 Ethics in Business, 3 cr. (Formerly BS-269A)
Course Descriptions

**Pharmacy Technology**

**PHR-107 Pharmacy Technology I, 7 cr.**
Foundation knowledge required for a pharmacy technician is taught in this course. Topics covered include an orientation to the pharmacy technician career, pharmacy law and ethics, relevant medical and pharmaceutical terminology, and pharmaceutical calculations. (Formerly PM-107C)

**PHR-117 Pharmacy Technician II, 7 cr.**
The second pharmacy technician core course includes the study of pharmacology, learning how to communicate effectively with clients and co-workers, and insurance filing and inventory procedures. Brief clinical rotations in a hospital and a retail pharmacy are required. (Formerly PM-117C)

**PHR-121 Pharmacy Technician Seminar, 1 cr.**
A capstone course to prepare students for entering the job market and for the certification exam. (Formerly PM-121C)

**PHR-941 Practicum, 3 cr.**
On the job training under the supervision of a registered pharmacist. (Formerly PM-133C)

**Physical Science**

**PHS-113 Intro to Physical Science, 4 cr.**
A survey of the basic concepts of astronomy and physics, recommended for students who have not had high school physics. Lecture, demonstration and laboratory. (Formerly SC-124A)

**PHS-142 Principles of Astronomy, 3 cr.**
Studies the latest astronomical discoveries and astrophysical theories. (Formerly SC-143A)

**PHS-166 Meteorology Weather Climate, 4 cr.**
Introduction to meteorological concepts with emphasis on the characteristics and composition of the atmosphere, weather observations, atmospheric stability and circulation, atmospheric storms, climatology and meteorological applications. Lecture and laboratory. (Formerly SC-143A)

**PHS-185 Intro to Earth Science, 3 cr.**
Surveys the basic concepts of chemistry, geology and meteorology. Same as the lecture portion of PHS-187. (Formerly SC-135A)

**PHS-187 Intro to Earth Science, 4 cr.**
Surveys the basic concepts of chemistry, geology and meteorology. This course is recommended for students who have not had high school chemistry. Lecture, demonstrations and laboratory. (Formerly SC-134A)

**Physics**

**PHY-162 College Physics I, 4 cr.**
Demonstrations, lectures, recitations and laboratory work beginning a two-semester sequence covering the subject. Mechanics is primarily covered during the first semester. Recommended for pre-medical, dental, pharmacy and for liberal arts student interested in the sciences. Prerequisite: An elementary understanding of algebra, trigonometry and geometry from high school study. (Formerly SC-184A)

**PHY-172 College Physics II, 4 cr.**
Continuation of PHY-162. Thermodynamics, electricity and magnetism are covered in this semester. Lecture and laboratory. Prerequisite: PHY-162. (Formerly SC-185A)

**PHY-212 Classical Physics I, 5 cr.**
Demonstrations, lectures recitations and laboratory work beginning a two-semester sequence covering the subject. Mechanics is primarily covered in the first semester. Recommended for those planning to major in engineering, physics, chemistry and mathematics. Prerequisite: Concurrent enrollment or previous course in calculus. (Formerly SC-284A)

**PHY-222 Classical Physics II, 5 cr.**
Continuation of PHY-222. Thermodynamics and electricity and magnetism are covered in this course. Lecture and laboratory (Formerly SC-285A)

**Practical Nursing**

**PNN-101 Mathematics for Health Profess, 1 cr.**
The course emphasizes basic math skills and calculation of drugs and solutions, as well as their use in healthcare settings (Formerly NU-131C)

**PNN-108 Survival Spanish for Nursing, 2 cr.**
This course is designed to provide non-Spanish-speaking nursing students and practitioners with functional skills in Spanish. Spanish phrases, commands, and questions practical to daily nursing duties are covered. No prior knowledge of Spanish necessary. (Formerly NU-142A)

**PNN-141 Fund of Nursing Skills Lab, 4 cr.**
This course introduces the beginning student to the caring nature of nursing, the development of the nurse-client relationship, principles of therapeutic communication and cultural diversity of clients. Historical, ethical, and legal principles related to the nursing profession are discussed. The nursing process is introduced with an emphasis on assessment, nursing diagnoses and nursing interventions utilizing standardized nursing language. The steps of the nursing process are presented as the framework for determining and meeting client needs within the scope of practice of the practical nurse. In addition, the student acquires knowledge regarding the action, effect, side effects and nursing implications of the major drug classifications and develops safe techniques of drug administration. (Formerly NU-154C)

**PNN-271 Normal Nutrition, 1 cr.**
An exploration of current issues related to nutrition including the Dietary Guidelines, the Food Pyramid and new labeling standards. Additional topics include nutrition through the life cycle, religious and cultural aspects of nutrition, and weight control and exercise. (Formerly HL-119A)

**PNN-275 Normal Nutrition, 3 cr.**
Provides the student with a basic background of the nutrients essential to maintain the physical and mental well-being of the human body. (Formerly HL-119A)

**PNN-345 Dimensions in Practical Nursing, 2 cr.**
In this final course of the PN curriculum principles of career planning and job-seeking are covered. The responsibilities of the nurse as a team and community member, interpersonal communication skills and the ethical and legal aspects of nursing are also addressed. The services and functions of the national, state, and local health organization and agencies are explored. (Formerly NU-132C)

**PNN-421 Maternal & Newborn Nursing, 2 cr.**
This course is a study of normal pregnancy and childbearing as it occurs within the family structure. Nursing care during normal pregnancy, birth and postpartum period are discussed with an emphasis on the nursing process. Common maternal and newborn complications are included. (Formerly NU-112C)
Course Descriptions

PNN-631 Adult & Child Health Nursing, 9 cr.
This course emphasizes the role of the practical nurse in the care of adult and pediatric clients. It includes a study of the body's adaptation to the common stressors in health and illness. Discussion includes medical and nursing management of specific disorders and conditions requiring surgical intervention. In addition, common disorders of the child from infancy through adolescence are discussed with an emphasis on growth and development. (Formerly NU-129C)

PNN-632 Nursing Care-Lifespan Clinical, 3 cr.
This course enables the student to practice the basic knowledge and skills necessary to meet the nursing care needs of culturally diverse individuals throughout their lifespan. The student will care for clients on the obstetrics and the medical-surgical units. An introduction to the care of the client in the operating and recovery room will be gained through an observational experience. Ancillary services such as diet therapy, respiratory therapy, physical therapy, x-ray and the laboratory are observed in relation to how they relate to specific client conditions. In addition, the student will explore the role of the nurse and utilization of the nursing process in the long term care setting. (Formerly NU-163C)

PNN-721 Dimensions of Practical Nursing Clinical, 3 cr.
This course is designed to assist the student through the entry level transitional period by providing experiences in the acute and long term care settings as a member of the nursing team. He/she assists the staff nurse in planning and implementing nursing care for assigned clients/residents. Effective communication skills are stressed. In the long term care facility, the student will assume the role of the team leader and medication nurse. (Formerly NU-173C)

PNN-722 Fund of Nursing Clinical, 2 cr.
Provides the student the opportunity to demonstrate principles and skills learned in the classroom and lab setting. The student develops an awareness of the role of the nurse in caring for stable, noncomplex clients in acute care facilities. Communication skills, documentation and utilization of the nursing process/standardized language are integral parts of the clinical component. (Formerly NU-159C)

Political Science

POL-110 Intro Political Science, 3 cr.
A general introductory course in the fundamental concepts, institutions, principles and procedures of political science. Background in classical political theory through exposure to ideas of past political philosophers (such as Aristotle, Machiavelli, Hobbes, Locke, Marx and others). Studies comparative systems through consideration of governments of Great Britain, France and Canada. (Formerly SS-103A)

POL-111 American National Government, 3 cr.
Review of basic fundamentals of government including federalism, the political process, the presidency, the congress and the judicial system. (Formerly POL-111)

POL-112 American State & Local Government, 3 cr.
Course examines the principles and practices of American state and local government as well as applications and case studies in each area. (Formerly SS-153A)

POL-121 International Relations, 3 cr.
Study of elements of national power and the formulation of foreign policy. Examination of national, state and international politics from 1871 to the present, including international organization, law and future prospects. (Formerly SS-246A)

POL-125 Comparative Politics & Government, 3 cr.
Survey of the methods, ideologies and main ideas in the field of comparative politics. Introduction to comparative research. Study and comparison of governments and institutions across nation-states. (Formerly SS-250A)

POL-135 World Politics, 3 cr.
The study of international politics and the interaction between state and non-state actions, with emphasis on those elements underlying the international political system. (Formerly SS-253A)

POL-201 The United States Constitution, 3 cr.
This course focuses on the historical evolution of the United States Constitution with emphasis on its antecedents, interpretation and change. Topics include a study of the Constitution's historical background and its basic features, a study of the seven articles, the twenty-six amendments and examination of current topics.

POL-213 Critical Thinking for Contemporary Society, 3 cr.
Through study of the process of thinking and the response to current affairs, consider many of the personal, economic and social issues affecting personal and civic responsibility in today's global environment. (Formerly SS-216A)

Psychology

PSY-111 Intro to Psychology, 3 cr.
A survey course which provides an introduction to the study of psychology with emphasis on the history of psychology, learning, personality, behavior, motivation, perception, psychological disorders and their treatment, and social psychology as well as other areas. (Formerly PSY-113A)

PSY-121 Developmental Psychology, 3 cr.
Studies human development from conception through the lifespan. Physical, emotional, social, cognitive and moral aspects are studied in the classroom, by lecture, file/video, projects, observation and by reading the literature. (Formerly PSY-222A)

PSY-211 Psychology of Adjustment, 3 cr.
Increases student's knowledge and experiences relating to various populations with disabilities. Adjustment to physical and/or mental disability, conflicting treatment models, impact on self, family, community and society are examined. (Formerly PSY-123A)

PSY-222 Child Psychology, 3 cr.
Covers development from conception to childhood. Emphasis is on child study, growth and development of physiological, motor personality, mental and emotional aspects, sensory and behavior development. Prerequisite: PSY111 OR PSY121. (Formerly PSY-246A)

PSY-223 Child & Adolescent Psychology, 3 cr.
This course looks at children from a developmental perspective and reflects how children change as a result of age and experience. Developmental processes are presented in three distinct categories or domains – biosocial, cognitive, and psychosocial. (Formerly PSY-253A)

PSY-224 Adolescent Psychology, 3 cr.
Psychology of Adolescence explores the rapid physical, social, emotional, and cognitive changes of adolescents. Students distinguish myths about adolescence from research findings and examine the importance of cultural and historical factors in this crucial transition from childhood to adulthood. Prerequisite: General Psychology I or permission of the instructor. (Formerly PSY-256A)
PSY-225  Adult Developmental Psych., 3 cr.  
Focuses on the growth and development of an individual from the middle to later years of the lifespan. The course examines the biological, psychological, and sociological aspects of aging such as the speed of behavior, mental functioning, mental disorders, aging, and death and dying. Student survey myths about the elderly along with current research in the field of geropsychology and gerontology. (Formerly PY-259A)

PSY-241  Abnormal Psychology, 3 cr.  
A survey course tracing history, models and symptoms of psychiatric disorders. Uses D.S.M.IV (diagnostic and statistical manual, 4th ed.) as a standard of abnormal behavior. (Formerly PY-243A)

PSY-251  Social Psychology, 3 cr.  
Explores social interaction from both the psychological and sociological perspectives. It is the study of how we think about, relate to, and interact with each other. (Formerly PY-213A)

PSY-261  Human Sexuality, 3 cr.  
Human Sexuality focuses on normal sexual development, human sexual responses, and common sexual problems. It provides factual information on human sexuality and raises practical questions about human sexual behavior. It also helps students examine and evaluate their views and values concerning sexual behavior. Prerequisite: Students must have taken one of the following three courses: Into to Psychology, Introduction to Sociology, Marriage and Family, or have permission of instructor. (Formerly PY-273A)

PSY-281  Educational Psychology, 3 cr.  
Survey of behavioral theory, classical, operant and vicarious learning. Studies the nature of the learning process, conditions that facilitate learning, problems of learning measurement leading to modern cognitivist concepts, and other variables that affect the learning process. (Formerly PY-236A)

Reading

RDG-030  Intro to College Reading I, 1 cr.  
Individualized reading skill development designed to improve comprehension, vocabulary and reading rate. Preliminary course for RDG031 for some students based on reading level. (Formerly CM-002H)

RDG-031  Intro to College Reading II, 1 cr.  
Individualized reading skill development designed to improve comprehension, vocabulary and reading rate. (Formerly CM-003H)

RDG-120  College Reading, 1 cr.  
An individualized elective course in reading. Prerequisite: RDG031 or an acceptable assessment score. (Formerly CM-111A)

Recreation

REC-112  Backpacking, 2 cr.  
The course contains basic backpacking skills. Skills covered will include camp craft, equipment and clothing selection, menu planning, and safety in a wilderness setting. Students will attend class to prepare for a two-and-one-half day backpacking trip. (Formerly RE-112A)

REC-113  Concepts of Wellness, 3 cr.  
Organizing and implementing wellness programs for employees in agencies and organizations. Emphasis will be on introduction to and recruitment of employees, fitness testing, prescription of individual and group wellness programs. Lecture and laboratory. (Formerly RE-113A)

REC-114  Foundations of Recreation, 4 cr.  
Designed to help the student better understand the role of recreation and leisure in our society. Provides students with information on agencies providing recreational services. (Formerly RE-114A)

REC-118  Recreation Leadership, 4 cr.  
Students gain an understanding of leadership theories and techniques and also develop an understanding of group dynamics relating to specific populations. (Formerly RE-118A)

REC-122  Recreation Fieldwork I, 2 cr.  
Recreation Fieldwork I is designed to give the student practical on the job experience. It will provide the student with an opportunity to plan, implement and evaluate recreational programs. (Formerly RE-122A)

REC-132  Orienteering, 2 cr.  
Provides students with the opportunity to learn and develop map and compass skills. Specific skills and knowledge include reading and understanding maps, land navigation techniques, and sport orienteering. Emphasis will be placed on integrating this activity into an outdoor recreation program. (Formerly RE-132A)

REC-133  Outdoor Living Skills, 3 cr.  
The course is designed to educate the student on how to travel safely for extended periods in the back-country. The essentials of life and how they can be provided in an outdoor setting will be presented. Related topics such as navigation, back-country medicine and wilderness concepts will also be discussed. (Formerly RE-133A)

REC-140  Introduction to River Kayaking, 3 cr.  
To teach beginner paddlers to safely and enjoyably kayak on gentle rivers.

REC-214  Program Planning and Organization, 4 cr.  
Students gain an understanding of many different recreation programs areas and the aspects of developing and conducting programs to meet the needs of various populations. (Formerly RE-214A)

REC-233  Intro to Outdoor Recreation, 3 cr.  
Introduces students to the breadth, depth and scope of outdoor recreation. Topics include the history and philosophy of recreation; the roles that the government and the private sector play in outdoor recreation; the importance of leadership; the basics of program design; and the methods of researching job opportunities in the field. Specific skills include trip planning, menu planning, expedition behavior, outdoor cookery, selection of gear and clothing, campsite management, map and compass. (Formerly RE-233A)

REC-235  Recreation Practicum, 6 cr.  
Advanced practical field experience. (Formerly RE-235A)

REC-236  Recreation Practicum, 5 cr.  
Advanced practical field experience. (Formerly RE-236A)

Religion

REL-101  Survey of World Religions, 3 cr.  
A survey of the major religions of the eastern and western world. Each is placed in its historical context, and its major tenets are explored. Goals include a general understanding of the various religions studied, some specific insights into each religion’s belief structures and discussion of the general function of religion in human experience. (Formerly PH-203A)
Science

SCI-111 Infinity Scholars I-Seminar, 1 cr.
Scholarship expectations, introduction to research projects, service learning and career/educational planning. Prerequisite: recipient of NSF-CSEM scholarship. (Formerly SC-111A)

SCI-112 Infinity Scholars II Seminar, 1 cr.
A research/capstone project in the area of study for students receiving a NSF-CSEM scholarship. Prerequisite: NSF-CSEM scholarship recipient and sophomore status. (Formerly SC-211A)

Sign Communication Skills

SCS-101 Basic Sign Language, 2 cr.
Presents students with basic skills in the use and understanding of signed English. (Formerly HD-206A)

Student Development

SDV-075 Strategies for Academic Success, 1 cr.
A human development seminar designed to help individual students increase their academic potential. Behavioral modification techniques are used. The effort is to help the student’s behavior become consistent with the student’s stated intentions concerning academic work. Access to this course is by referral. (Formerly PY-100H)

SDV-090 College 101, 0 cr.
An introduction to academic and personal information related to Iowa Lakes Community College. This information is vital for student success. P/Q grading. (Formerly ED-101A, BS-101A, MA-100A, SC-100A, HC-100A, HL-100A, AG-100A)

SDV-103 Successful Learning, 1 cr.
Students master the academic and personal skills needed to succeed in higher education and in life. Content will cover academic, communication and life management skills. Goal setting, time management, note taking, test taking and how to be a lifelong learner will also be covered. (Formerly CM-101A)

SDV-106 Library Orientation, 1 cr.
This course will help you know what kinds of information and services you can find in a library and how to use that information. Knowing how to use library services will save time and money throughout a lifetime. (Formerly CM-104A)

SDV-131 Career Exploration, 2 cr.
Students learn about themselves, theories about career, and resources available to assist in the career exploration and decision-making process. (Formerly SS-102A and SS-110A)

SDV-195 Student Government I, 1 cr.
Encouraging academic excellence within the realm of providing social, recreational, educational and cultural activities. (Formerly SS-102A and SS-110A)

Sustainable Energy Resources

SER-101 Intro to Sustainable Energy Resources, 3 cr.
Introduction to Sustainable Energy Resources is designed to provide a basic understanding of energy, current trends in energy consumption, and the role of sustainable energy resources in today’s society. Topics covered will include matter and energy laws, the history of energy usage by humans, the categories of energy resources, and the environmental problems currently being caused by energy consumption.

SER-111 Intro to Wind Energy Resources, 3 cr.
Introduction to Wind Energy Resources is designed to provide a basic understanding of wind as an energy resource. Topics covered will include the history of wind energy usage; the location, magnitude, and availability of wind energy resources; wind energy technologies; and the economic and environmental issues associated with using wind energy resources.

SER-121 Intro to Biomass Energy Resources, 3 cr.
Introduction to Biomass Energy Resources is designed to provide a basic understanding of biomass as an energy resource. Topics covered will include the history of biomass energy usage; the location, magnitude, and availability of biomass energy resources; biomass energy technologies; and the economic and environmental issues associated with using biomass energy resources.

Sociology

SOC-110 Intro to Sociology, 3 cr.
A survey course applying basic sociological concepts, theories, and methods to examine society, culture, cultural institutions, cultural diversity, and cultural stability and change. (Formerly SS-113A)

SOC-115 Social Problems, 3 cr.
Applies basic scientific sociological concepts and principles to the examination of contemporary social issues such as crime, poverty, violence, and inequality. (Formerly SS-123A)

SOC-120 Marriage and Family, 3 cr.
The sociological study of the family and family-related issues in cultural, cross-cultural, historical, and social context. (Formerly SS-223A)

SOC-126 Social Science Interim - 1, 1 cr.
Supplemental enrichment course related to the Social Sciences which includes special projects. P/A grading. (Formerly SS-121A)

SOC-160 Introduction to Social Work, 3 cr.
An introductory course in social welfare systems and social work practice that surveys the historical development of the social work profession in conjunction with the development of the social welfare services in the United States. (Formerly SS-133A)

SOC-186 Contemporary Global Issues, 3 cr.
A survey course to identify and analyze the variety and extent of global economic, political, social and cultural problems and issues. (Formerly SS-280A)

SOC-200 Minority Group Relations, 3 cr.
Survey of the contributions that various minorities have made to the development of the United States. (Formerly SS-273A)

SOC-220 Sociology of Aging, 3 cr.
Discusses the psychological and societal changes and needs of the elderly. Emphasis is on the effect of, and adaptation to, role changes such as retirement and institutionalization. It also deals with perspectives on adult development in the areas of emotional, cognitive and personality development. Grief, dying, and death, the final stages of the life process are examined from varying points of view. (Formerly GR-102A)
SOC-270  Social & Behavior Research Methods, 3 cr.
An introduction and survey of the major concepts and strategies involved in the undertaking of empirical research. Students learn the meaning of such terms as reliability, validity, variance, and hypothesis. The major research methods: include the true experiment, field research, secondary analysis, and surveys. Students assess sampling techniques and table construction. (Formerly PY-283A)

SOC-890  Service Learning, 1 cr.
The Service Learning field experience offers students a hands-on opportunity to explore professional and technical aspects within an organization. Through this Service Learning project the student must be involved with a meaningful project, have an academic connection, and have an opportunity to reflect on the experience upon its completion. (Formerly SS-192A)

Speech

Development of the basic skills involved in variety of speaking situations, including oral presentations and interpersonal speaking. Emphasis is placed on organization, voice, articulation, listening, non-verbal communication, critical thinking, and methods of dealing with speech comprehension. (Formerly SP-103A)

SPC-112  Public Speaking, 3 cr.
This course helps students develop confidence in both professional and personal presentation skills. Topics include critical thinking, organization, and audience analysis in both professional and personal presentation skills. Topics include critical thinking, organization, audience evaluation, effective listening, audience message retention, and the use of visual help. Course requirements include that the student be actively engaged in researching appropriate related material from newspapers, periodicals, or the web. This research will enhance the student’s learning and develop deeper insights into the course topics. The instructor will define specific course related assignments that require active research efforts as a requirement for successful course completion. (Formerly SP-123A)

SPC-121  Interpersonal Communication, 2 cr.
Designed to improve ability in speaking to others in interpersonal situations such as conversation, relationships, business, and group discussions. (Formerly SP-142A)

SPC-122  Interpersonal Communications, 3 cr.
Examines how humans communicate in one-on-one situations through personal and professional relationships. (Formerly SPC-143A)

Surgical Technology

SUR-119  Intro to Surgical Procedures, 4 cr.
Students will learn various phases of surgical patient care that requires knowledge of surgical attire, equipment and supplies, case selection, surgical instruments, specialty equipment, aseptic technique, gowning and gloving, surgical counts, and draping. (Formerly ST-146C)

SUR-121  Surgical Techniques I, 6 cr.
Study of professional responsibilities and conduct; operating room environment; fire and electrical safety; universal precautions; and operating room safety. Basic microbiology and its relationship to healing and the many types of pharmacological agents used in surgery will be included. (Formerly ST-116C)

SUR-122  Intro to Surgical Technology, 4 cr.
The principles of aseptic techniques including methods of sterilization and disinfection; procedures for scrubbing, gowning and gloving; and the means for sanitizing the operating room. Includes preoperative routine. (Formerly ST-118C)

SUR-123  Patient Care Concepts, 2 cr.
This course introduces the student to the ancillary areas of the surgical environment, to assess patient needs, and to learn pre and post-operative routines. The students will learn appropriate responses to legal, ethical, and moral issues. (Formerly ST-122C)

SUR-222  Surgical Techniques II, 2 cr., 4 cr.
This course completes the study of surgical techniques, specifically supplies and equipment. Operating furniture and equipment; sutures and sponges; drainage systems; counts; and a final encompassing unit on establishing a sterile field are covered. This course is taught in conjunction with Surgical Procedures. (Formerly ST-142C)

SUR-223  Surgical Procedures, 6 cr.
This course addresses diagnostic, general and specialized surgery. General surgery covers procedures on hernias, thyroid and breast. Other units deal with common procedures and special instruments needed for specialized surgery in the following areas: Gastrointestinal; obstetrics and gynecology; genitourinary; ear, nose and throat; ophthalmic; plastic; orthopedic; neurosurgery; thoracic; and cardiovascular/peripheral surgery. Prerequisites: ST111C, ST114C and ST117C. (Formerly ST-126C)

SUR-227  Surgical Procedures Lab, 2 cr.
This course will allow students to apply principles learned during Surgical Procedures lecture in a hands-on lab setting. Students will further redefine skills related to the three phases of case management as they apply to each surgical specialty. (Formerly ST-148C)

SUR-420  Pharmacology for Surgical Tech, 2 cr.
This course emphasizes the classifications of medications used in surgery. The student will become familiar with the general terminology used with medication application. (Formerly ST-132C)

SUR-430  Microbiology - Surgical Tech, 2 cr.
This course includes the correlation of the relationship to the practice of sterile technique and infection control in the operative setting. The student will use the microscope to contrast and compare the structure and characteristics of microorganisms. (Formerly ST-112C)

SUR-440  Biomedical Science for Surgical Tech, 2 cr.
This course provides a broad base of knowledge for the entry-level surgical technologist in the area of computers, electricity, physics, and robotics. The understanding of the fundamental principles of these technologies is essential. (Formerly ST-140C)

SUR-519  Surgical Technology Practicum, 4 cr.
This course provides clinical experience with a variety of preoperative assignments to build skills required for complex preoperative patient care. Emphasis is placed on greater technical skills, critical thinking, speed, efficiency, and autonomy. (Formerly ST-144C)

SUR-520  Surgical Technology Practicum I, 2 cr.
This clinical course provides the students an orientation to the Hospital Operating Room. This allows the students opportunity to apply skills learned in the Patient Care Concepts and Surgical Techniques I courses. (Formerly ST-110C)

SUR-521  Surgical Technology Practicum II, 6 cr.
The final clinical course of the Surgical Technology curriculum combines all prior learning in an applied setting working with an on-site mentor assigned by the practicum supervisor. Students are required to participate in specific cases at varying levels of involvement. This course is a continuation of Practicum I. (Formerly ST-136C)
### Course Descriptions

#### Welding

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEL-111</td>
<td>Welding Blueprint Reading, 3 cr.</td>
<td>Blueprint reading and layout to develop essential skills to permit use of blueprints in job-like situations. (Formerly WE-113C)</td>
<td></td>
</tr>
<tr>
<td>WEL-121</td>
<td>Oxy Fuel Welding &amp; Cutting, 4 cr.</td>
<td>Oxy-acetylene welding in correlation with identification of metals; care and use of welding equipment; selection of rods and fluxes; and safety. Lecture and laboratory. (Formerly WE-111C)</td>
<td></td>
</tr>
<tr>
<td>WEL-128</td>
<td>Brazing / Soldering, 2 cr.</td>
<td>Identification of metal and what filler is needed to join these materials. Prerequisites: WE111C and WE112C. (Formerly WE-115C)</td>
<td></td>
</tr>
<tr>
<td>WEL-158</td>
<td>Structural Weld, 4 cr.</td>
<td>Designed to develop techniques required to properly weld structural steel and pass the AWS certification examination. Lecture and laboratory. Prerequisites: WE111C and WE112C. (Formerly WE-114C)</td>
<td></td>
</tr>
<tr>
<td>WEL-160</td>
<td>Arc Welding I (SMAW), 5 cr.</td>
<td>Safety factors and practices relating to welding machines, electrodes and positions used in arc welding. Lecture and laboratory. (Formerly WE-112C)</td>
<td></td>
</tr>
<tr>
<td>WEL-179</td>
<td>Special Processes/Procedures, 3 cr.</td>
<td>Ferrous to ferrous, nonferrous to nonferrous hard surfacing used in the welding field today. Lecture and laboratory. Prerequisites: WE111C and WE112C. (Formerly WE-124C)</td>
<td></td>
</tr>
<tr>
<td>WEL-180</td>
<td>GMAW/GTAW, 2 cr.</td>
<td>Studies the necessary fundamentals of the metallic inert gas and tungsten gas processes. (Formerly ME-121C)</td>
<td></td>
</tr>
<tr>
<td>WEL-183</td>
<td>GMAW/GTAW, 3 cr.</td>
<td>Studies MIG and TIG welding in correlation with the use of equipment, variables, safety and data for welding metals. Prerequisite: WE121C. (Formerly WE-122C)</td>
<td></td>
</tr>
<tr>
<td>WEL-210</td>
<td>Production Welding, 3 cr.</td>
<td>Work is done quickly, uniformly and close to tolerances. Design layout and building jigs from prints are required. Prerequisites: WE121C and WE122C. (Formerly WE-125C)</td>
<td></td>
</tr>
<tr>
<td>WEL-303</td>
<td>Pipe Welding/SMAW, 3 cr.</td>
<td>Application of safe procedures, theory and practice in the repair of metals using oxy-acetylene, arc and gas metal arc welding processes. Students are taught in a hands-on setting the basic procedures for repairing fractured metal. (Formerly WE-126C)</td>
<td></td>
</tr>
<tr>
<td>WEL-310</td>
<td>Pipe Welding, 5 cr.</td>
<td>Develops the exacting techniques required to properly weld pipe installations. Lecture and Laboratory. Prerequisites: WE121C, WE121C, WE122C. (Formerly WE-123C)</td>
<td></td>
</tr>
<tr>
<td>WEL-334</td>
<td>Trade &amp; Industry Welding, 2 cr.</td>
<td>Principles and applications of gas and MIG welding theory, safety and shop practices are covered. Lecture and laboratory. (Formerly TI-103C)</td>
<td></td>
</tr>
<tr>
<td>WEL-337</td>
<td>Industrial Technical Welding, 2 cr.</td>
<td>Introduction to electric, gas, wire and oxy-acetylene welding. (Formerly AE-112C)</td>
<td></td>
</tr>
</tbody>
</table>

#### Wind Energy & Turbine Technology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>WTT-103</td>
<td>Introduction to Wind Energy, 3 cr.</td>
<td>Introduction to Wind Energy students will be exposed to the many facets of the wind industry. This course will cover the history and development of the wind industry, terminology used in the industry, types and applications of various wind turbines, environmental and economic issues of the wind industry, the future of the wind industry, other topics that are appropriate. (Formerly WT-103C)</td>
<td></td>
</tr>
<tr>
<td>WTT-106</td>
<td>Wind Turbine Field Training, 3 cr.</td>
<td>Wind Turbine Field Training students will be introduced to the aspects of the industry standards, requirements, and issues that are a part of working in the field. Information to be covered will include but not be limited to safety training, working around cranes and riggings, tower climbing, fasteners and lubricants used in the industry, other subject matter that may be appropriate. (Formerly WT-106C)</td>
<td></td>
</tr>
<tr>
<td>WTT-109</td>
<td>Wind Turbine Operations, 3 cr.</td>
<td>Introduction to Wind Turbine Operations will introduce the students to the daily operation of a wind turbine facility. Course content will include reporting requirements, documentation, use of technical manuals, controllers and monitoring systems, other pertinent content. (Formerly WT-116C)</td>
<td></td>
</tr>
<tr>
<td>WTT-111</td>
<td>Direct Current Elect Theory, 4 cr.</td>
<td>Direct Current Electrical Theory is an introduction to basic electrical theory and the components that make up electrical circuits. D/C Theory will be presented in a lecture and laboratory format. Course content will include, but not be limited to basic circuits, electrical components and their applications, hands-on reinforcement of theory covered during lecture. (Formerly WT-118C)</td>
<td></td>
</tr>
<tr>
<td>WTT-118</td>
<td>Direct Current Elect Theory I, 4 cr.</td>
<td>Introduction to Wind Turbine Operations will introduce the students to the daily operation of a wind turbine facility. Course content will include reporting requirements, documentation, use of technical manuals, controllers and monitoring systems, other pertinent content. (Formerly WT-116C)</td>
<td></td>
</tr>
<tr>
<td>WTT-119</td>
<td>Direct Current Elect Theory II, 4 cr.</td>
<td>Introduction to Wind Turbine Operations will introduce the students to the daily operation of a wind turbine facility. Course content will include reporting requirements, documentation, use of technical manuals, controllers and monitoring systems, other pertinent content. (Formerly WT-116C)</td>
<td></td>
</tr>
<tr>
<td>WTT-126</td>
<td>Basic Hydraulics, 3 cr.</td>
<td>This course will introduce students to the basic structure and application of hydraulics. Students will also learn how to read hydraulic schematics and troubleshoot basic hydraulic components. (Formerly WT-126C)</td>
<td></td>
</tr>
<tr>
<td>WTT-132</td>
<td>Electric Motors and Generators, 2 cr.</td>
<td>Introduction to the terminology and basic principals of Direct Current and Alternating Current motors and generators. Students will be exposed to not only single phase but three phase motors and generators as well as the controls that allow operation. (Formerly WT-132C)</td>
<td></td>
</tr>
<tr>
<td>WTT-133</td>
<td>Wind Turbine Mechanical System, 3 cr.</td>
<td>Wind Turbine Mechanical Systems will introduce the students to gearboxes and other mechanical systems that make up subsystems of today’s wind turbine. (Formerly WT-133C)</td>
<td></td>
</tr>
<tr>
<td>WTT-134</td>
<td>Electric Motors &amp; Generators, 4 cr.</td>
<td>Electric motors and generators is an introduction to types of motors and generators that are used today. The characteristics of Direct Current and Alternating Current motors and generators will be discussed and demonstrated through lecture and hands on laboratory sessions. (Formerly WT-134C)</td>
<td></td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
<td>Description</td>
</tr>
<tr>
<td>------------</td>
<td>--------------------------------------------------</td>
<td>---------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>WTT-143</td>
<td>Alternating Current Elect Theory I, 3 cr.</td>
<td></td>
<td>Students will be exposed to alternating voltage and current and the many properties that will assist them in troubleshooting AC circuits. Instruction will include capacitive and inductive circuits. Lab will include hands-on training to enhance lecture information. (Formerly WT-143C)</td>
</tr>
<tr>
<td>WTT-201</td>
<td>Wind Turbine Site Construction/Locate, 1 cr.</td>
<td></td>
<td>Students attending &quot;Wind Turbine Site Construction and Locations&quot; will be exposed to the various aspects of construction as it applies to the Wind Industry. Students will be engaged in discussions on the use of cranes, rigging, tower assembly, commissioning as well as other events that encompass Wind Turbine Power Production facilities. (Formerly WT-201C)</td>
</tr>
<tr>
<td>WTT-204</td>
<td>Wind Turbine Siting, 4 cr.</td>
<td></td>
<td>This course will allow students the opportunity to learn the techniques, methodology, and concepts used to develop projects around the world. (Formerly WT-204C)</td>
</tr>
<tr>
<td>WTT-214</td>
<td>Basic Networking/Comp Tech, 3 cr.</td>
<td></td>
<td>Foundational training in local area networking technology, protocols, and installation procedures. Troubleshooting minor hardware problems, installing hardware, system configuration, and running diagnostics. (Formerly WT-214C)</td>
</tr>
<tr>
<td>WTT-216</td>
<td>Power Generation &amp; Transmission 3 cr.</td>
<td></td>
<td>Power Generation and Transmission will serve as an introduction to the generation of electrical power with a wind turbine generator, moving that power through a local transmission system to a substation where a customer will purchase the generated power. This course will cover all aspects of working with components of a high voltage transmission system. (Formerly WT-216C)</td>
</tr>
<tr>
<td>WTT-223</td>
<td>Airfoils and Composite Repair, 3 cr.</td>
<td></td>
<td>Airfoils and Composite Repair will prepare the student for working with wind turbine blades to include terms, manufacture and repair of wind turbine blades. (Formerly WT-223C)</td>
</tr>
<tr>
<td>WTT-225</td>
<td>Data Acquisition &amp; Assessment, 4 cr.</td>
<td></td>
<td>This course will give students information on how wind resource data is collected and analyzed for the use in the development of wind powered generation of electricity. Students will also learn how to assess power production of individual wind turbines. (Formerly WT-225C)</td>
</tr>
<tr>
<td>WTT-235</td>
<td>Programmable Logic Control Systems, 4 cr.</td>
<td></td>
<td>This course will introduce students to Programmable Logic Controllers (PLC’s), primarily the Allen Bradley SLC 500 line of processors. (Formerly WT-235C)</td>
</tr>
<tr>
<td>WTT-244</td>
<td>Alternating Current Elect Theory II, 4 cr.</td>
<td></td>
<td>Alternating Current Electrical Theory II will consist of instruction that will build upon experience gained in Direct Current Theory and Alternating Current Theory I. Students will be introduced to advanced concepts of electrical theory. (Formerly WT-244C)</td>
</tr>
<tr>
<td>WTT-245</td>
<td>Electrical Practical Application, 4 cr.</td>
<td></td>
<td>Electrical Practical Applications will provide students with practical wiring exercises involving installation, wiring, and troubleshooting of electrical devices and equipment used in, but not specific to, wind turbine control systems. Students will study electrical diagrams, design of electrical systems, and electrical safety. (Formerly WT-245C)</td>
</tr>
<tr>
<td>WTT-246</td>
<td>Internship, 5 cr.</td>
<td></td>
<td>The wind turbine internship will give students the opportunity to apply skills developed during the first two semesters of the Wind Energy and Turbine Technology program. (Formerly WT-205C)</td>
</tr>
</tbody>
</table>

**Course Descriptions**

WTT-143  Alternating Current Elect Theory I, 3 cr.
Students will be exposed to alternating voltage and current and the many properties that will assist them in troubleshooting AC circuits. Instruction will include capacitive and inductive circuits. Lab will include hands-on training to enhance lecture information. (Formerly WT-143C)

WTT-201  Wind Turbine Site Construction/Locate, 1 cr.
Students attending “Wind Turbine Site Construction and Locations” will be exposed to the various aspects of construction as it applies to the Wind Industry. Students will be engaged in discussions on the use of cranes, rigging, tower assembly, commissioning as well as other events that encompass Wind Turbine Power Production facilities. (Formerly WT-201C)

WTT-204  Wind Turbine Siting, 4 cr.
This course will allow students the opportunity to learn the techniques, methodology, and concepts used to develop projects around the world. (Formerly WT-204C)

WTT-214  Basic Networking/Comp Tech, 3 cr.
Foundational training in local area networking technology, protocols, and installation procedures. Troubleshooting minor hardware problems, installing hardware, system configuration, and running diagnostics. (Formerly WT-214C)

WTT-216  Power Generation & Transmission 3 cr.
Power Generation and Transmission will serve as an introduction to the generation of electrical power with a wind turbine generator, moving that power through a local transmission system to a substation where a customer will purchase the generated power. This course will cover all aspects of working with components of a high voltage transmission system. (Formerly WT-216C)

WTT-223  Airfoils and Composite Repair, 3 cr.
Airfoils and Composite Repair will prepare the student for working with wind turbine blades to include terms, manufacture and repair of wind turbine blades. (Formerly WT-223C)

WTT-225  Data Acquisition & Assessment, 4 cr.
This course will give students information on how wind resource data is collected and analyzed for the use in the development of wind powered generation of electricity. Students will also learn how to assess power production of individual wind turbines. (Formerly WT-225C)

WTT-235  Programmable Logic Control Systems, 4 cr.
This course will introduce students to Programmable Logic Controllers (PLC’s), primarily the Allen Bradley SLC 500 line of processors. (Formerly WT-235C)

WTT-244  Alternating Current Elect Theory II, 4 cr.
Alternating Current Electrical Theory II will consist of instruction that will build upon experience gained in Direct Current Theory and Alternating Current Theory I. Students will be introduced to advanced concepts of electrical theory. (Formerly WT-244C)

WTT-245  Electrical Practical Application, 4 cr.
Electrical Practical Applications will provide students with practical wiring exercises involving installation, wiring, and troubleshooting of electrical devices and equipment used in, but not specific to, wind turbine control systems. Students will study electrical diagrams, design of electrical systems, and electrical safety. (Formerly WT-245C)

WTT-246  Internship, 5 cr.
The wind turbine internship will give students the opportunity to apply skills developed during the first two semesters of the Wind Energy and Turbine Technology program. (Formerly WT-205C)
BOARD OF TRUSTEES

John Hand, President, District 6, Emmetsburg
Jan Lund, Vice President, District 2, Estherville
Jack Tatman, District 3, Spirit Lake
Susan Zulk, District 4, Spencer
Lynn Kueck, District 7, Algona
Bud Kyle, District 5, Milford
Jim Miller, District 1, Ringsted

PRESIDENT'S CABINET

Harold Prior (2006)
President
B.A., Peru State College; M.S., Northwest Missouri State University; Ph.D., Iowa State University

Thomas Brotherton (2003)
Executive Dean, Emmetsburg Campus
B.A., University of Iowa; M.A., University of Nebraska-Omaha

Jane Sewell Campbell (1994)
Executive Director of Marketing
B.A., University of Northern Iowa

Julie Carlson (1985)
Dean of Enrollment Management
B.A., Mankato State University; M.A., University of Iowa

Kitty Conover (1994)
Dean, Spencer Campus
B.S., Iowa State University; M.A., Drake University

Judy Cook (1984)
Executive Director of Planning & Development
B.A., Augustana College (Illinois); M.A., University of Iowa

Delaine Hiney (1992)
Executive Director of Facilities Management
A.A., Iowa Lakes Community College; B.A., Briar Cliff College; M.A., Colorado State University

Trudy Kattner (1985)
Dean, Algona Campus
B.A., Cornell College; M.A., Antioch University

Mary Larscheid (1994)
Executive Dean, Estherville Campus
B.S., M.S., University of Wyoming

Robert L’Heureux (1985)
Chief Financial Officer
B.A., Simpson College; M.A., University of Iowa

Clark Marshall (1986)
Executive Director of Economic Development/Continuing Education
Business management experience, 24 years

Darin Moeller, (1994)
Dean, Spirit Lake Campus
B.A., University of Northern Iowa; M.A., Iowa State University

Mary Mohni (2003)
Chief Academic Officer
B.A., Buena Vista University; M.A., University of Minnesota

Valerie Newhouse (1998)
Executive Vice President
B.A., Buena Vista University; M.A., University of Iowa

Executive Director of Institutional Advancement
B.B.A. Iowa State University

Bob Seigel (1997)
Chief Information Officer
B.A., Ohio State University; M.B.A., National University

ADDITIONAL MEMBERS COMPRISING ADMINISTRATIVE STAFF

Randy Beernink (1983)
Computer Center Director
B.A., Northwestern College; B.A., University of Iowa

John Beneke (1991)
Financial Aid Director (1991)
B.A., Buena Vista University; M.A., Iowa State University

Brenda Colegrove (1997)
Director of Libraries
B.S., M.A., Mankato State University

Mary Faber (1995)
Student Support Services/Upward Bound/Talent Search Project Director
B.A., University of Northern Iowa; M.A., University of Iowa

Rod Ferguson (1987)
Building and Grounds Manager

Kari Hampe (1994)
Secondary Programs Director
B.S., Northwest Missouri State University; M.S., Southwest State University

Bill Lapczenski (1983)
Director of Auxiliary Services
A.A.S., Iowa Lakes Community College
Troy Larson (2007)  
Athletics Director/ Men’s Head Basketball Coach/ Housing  
Director  
A.A., Iowa Lakes Community College; B.S., Morningside College;  
M.B.A., University of South Dakota  

Kelly McCarty (1999)  
Small Business Development Center  
B.A., University of Northern Iowa  

Stephen Pelzer (1998)  
Business Manager  
B.A., University of Northern Iowa; M.B.A, Southwest Minnesota  

Ann Petersen (1980)  
Director, Special Needs  
B.S., University of South Dakota; M.A., University of Iowa  

Scott Stokes (2003)  
Registrar  
B.A., University of Northern Iowa; M.S., Southwest Minnesota  
State University  

Tom Weideman (1984)  
Computer Network Administrator  
A.A.S., Western Iowa Tech Community College  

Pre Nursing Coordinator, Nursing Instructor  
B.S.N., College of St Teresa; M.A., Univ. of Texas at El Paso  

Theresa Zeigler (1993)  
Director of Distance and Global Education  
B.A., University of Northern Iowa  

FACULTY AND PROFESSIONAL STAFF  

Daniel Acosta (2006)  
Admissions Counselor/Assistant Baseball Coach  

Trudy Strain-Ahrens (1997)  
ASPIRES Specialist  
B.S., Iowa State University; M.S., Southwest State University  

Tammy Anderson (2007)  
Account Receivable Processor  
Spencer School of Business  

Ron Anderson (1998)  
Television System/Micro Computer Network Technician  
A.A.S., North Iowa Area Community College  

Dave Appelhons (1986)  
Print Shop Specialist  
Diploma, Iowa Lakes Community College  

Carol Ayres (1988)  
Instrumental Music Professor/ Jazz Band Director  
B.A., Buena Vista University; M.Mus.Ed., University of South Dakota  

Nursing Assistant Professor  
Diploma, St. Joseph School of Nursing, Sioux City; B.S.N., University of Iowa; M.S.N., University of Phoenix  

DeeAnn Bates (1998)  
Continuing Education Programmer  
A.A., Iowa Lakes Community College; B.A., Buena Vista University; M.S.E., Southwest State University  

Kathryn Beachem (2001)  
Program Advisor  
B.A., University of Iowa  

Lecia Berven (1998)  
Accounting Specialist Associate Professor/Coordinator  
A.A., Iowa Lakes Community College; B.A., Mankato State University; B.A., Buena Vista University; M.B.A., Regis University-Denver  

Matthew Bohl (2000)  
Motorcycle Mechanics Instructor/Coordinator  
Diploma, Iowa Lakes Community College  

Stacy Bohl (1998)  
Administrative Assistant  
A.A., Iowa Lakes Community College  

Mike Bosch (1996)  
Mathematics Professor/ Head Softball Coach  
B.S., Southwest State University; M.S., Mankato State University  

Daniel Bredeson (2001)  
Farm Equipment and Diesel Technology Program Instructor/Coordinator  
Diploma, Western Montgomery Vocational Tech School, Limerick,Pa.  

Pat Breuer (1994)  
Continuing Education Office Assistant  
Diploma, Iowa Lakes Community College  

Rick Brichta (2002)  
Marine and Small Engine Technology Instructor  
Diploma, Iowa Lakes Community College  

Brian Bristow (2007)  
Science Instructor  
B.S., M.S., Iowa State University  

Beth Brown (1989)  
Human Resources/Payroll Specialist  

Pamela Buchholz (2001)  
Journalism/Photography Assistant Professor/Coordinator  
B.A., Mount Marty College  

Mari Miller-Burns (1999)  
Speech Communication Associate Professor  
B.A., Concordia Lutheran College; M.A., University of Northern Iowa; Secondary Education Licensure, University of Iowa  

Beth Burton (1999)  
Business Office Assistant  
A.A.S., Iowa Lakes Community College; B.A., Buena Vista University
Faculty & Staff

Brian Campbell (1971-84, 1986)
Secondary Program Coordinator
B.S., University of South Dakota at Springfield

Kimberly Campbell (2002)
Talent Search Advisor
B.A., Augustana College

Marvin Carlson (1989)
Agriculture Production Associate Professor/Coordinator
B.S., Iowa State University

Calvin E. Christensen (1985)
Agribusiness Technology Professor/Coordinator
B.S., M.S., Iowa State University

Julie Clark (2002)
Science Lab Assistant
A.S., Iowa Lakes Community College

Rosemary Coleman (2003)
Continuing Education Health Programmer
A.A., Iowa Lakes Community College; B.A., Buena Vista University

Shane Conley (2007)
Motorcycle Mechanic Instructor
Diploma, Iowa Lakes Community College

Larry Danielson (1986)
Automotive Technician Associate Professor/Coordinator
Diploma, Lincoln Tech; B.A., Buena Vista University

Jerimiah DePyper (2005)
Computer Support Specialist

David DeVary (2007)
Computer Specialist Program Instructor/Coordinator
B.A., Iowa State University

Lora Devereaux (2006)
Communications Instructor
B.A., Buena Vista University; M.A., Minnesota State University

Douglas Dingel (1990)
Social Science Professor
B.A., Morningside College; M.A., University of Denver

Steven Dobbins (2001)
Emergency Medical Services and Fire Service Programmer
Diploma, Iowa Lakes Community College

Lynn Dodge (1996)
Success Center Professor
B.S., Iowa State University; M.S.E., Buena Vista University

Marlene Donovan (1989)
Health Care Administration Professor/Coordinator
B.A., Buena Vista University, M.A, University of Osteopathic Medicines and Health Science

Ronald Duer (1999)
Aviation/Airport Management Program Chief Flight Instructor/Co-Coordinator
A.A., Iowa Lakes Community College

Kelli Eglad (2005)
Nursing Instructor
B.S.N., Morningside College

Ryan Eick (1999)
Special Needs Assistant Professor/Coordinator
B.A., Buena Vista University; M.A., Morningside College

Katie Elbert (2003)
Institutional Advancement Event and Development Coordinator
B.A., University of Northern Iowa; M.A., Iowa State University

Kerry Erickson (1999)
Hotel and Restaurant Management Associate Professor
B.A., Mankato State University; M.S., Southwest State University

Michelle Erickson (1998)
Facilities Specialist
A.A., Iowa Lakes Community College; B.A., Buena Vista University; M.B.A., Southwest Minnesota State University

Craig Evert (2007)
Wind Energy Technology Instructor
B.S., University of Nebraska

Bonnie Ewoldt (1997)
Alternative High School Lead Instructor
B.A., University of Northern Iowa; M.A., Southwest State University

Sonja Fagre (2007)
Criminal Justice Instructor/Co-Coordinator
B.S. University Of Central Missouri

Steve Farnsworth (1979-84, 1988)
Welding Instructor
A.A., Iowa Lakes Community College

Kevin Fehr (1994)
Assistant to the Campus Dean
Commercial Extension School of Business

Nicole Foxhoven (2001)
SAVE Program Assistant Professor
B.A., Buena Vista University; M.A., Morningside College

Diane Friesner (1987)
Computer Operator
A.A., Iowa Lakes Community College

Brett Fuelberth (1997)
Vocal Music Associate Professor/Choir Director
B.F.A.E., Wayne State College; M.M., University of Missouri

Mary Gengerke (1999)
ADN Coordinator
B.A., South Dakota State University

Janet Gentle (2005)
Massage Therapy Instructor
Faculty & Staff

Molly Giddings (2007)
Aspires Specialist
M.A., University of Northern Iowa

Dana Grafft (2002)
Surgical Technology Instructor
Certificate, Western Iowa Tech

Barb Grandstaff (1988)
ABE/GED Programmer
B.A., Drake University; M.S., Iowa State University

Darwin Grimm (1982)
Business Professor
B.A., Sioux Falls College; M.B.A., University of South Dakota

Veloy Grimm (1983)
Academic Projects Specialist
Nettleton Commercial College

Mark Gruwell (2005)
Legal Assistant Program Instructor/Coordinator
B.S., Florida State University; J.D., Stetson University College of Law

Roger Guge (1984)
Admissions Counselor
B.A., Sioux Falls College

Monica Gunn (2007)
Upward Bound Advisor
B.A., George Washington University

Sharon Hackenmiller (2004)
Social Science Assistant Professor
B.A., M.A., University of Northern Iowa

Ryck Hale (1995)
Physical Education Professor
A.A., Iowa Lakes Community College; B.A., Sioux Falls College; M.P.E., University of Nebraska, Lincoln

Pat Hall (1977)
Aviation Program Associate Professor/Co-Coordinator
B.S., Mankato State University

Linda Halverson (1972)
Business Professor
B.A., M.A., University of Northern Iowa

Hotel and Restaurant Management Professor/Coordinator
B.S., Mankato State University; M.A., University of Northern Iowa

Nate Hansen (2005)
Admissions Counselor
B.A., Buena Vista University

Carol Hartig (1996)
Medical Assistant, Chiropractic Assistant, Surgical Technology Professor
A.A.S., Iowa Lakes Community College; B.S.N. University of Iowa

Linda Helmers (1990)
Student Support Services Counselor
B.S., M.Ed., South Dakota State University

Ahmad Hemami (2007)
Wind Energy Technology Instructor
B.S., University of Teheran; M.A. and Ph.D., University of Salford in England

Janice Hoover (1993)
Spencer Food Service Coordinator

Karen Howard (1997)
Administrative Assistant to the Dean

Johnny Hurley (2005)
Business Instructor
A.A., Iowa Lakes Community College; B.A., Buena Vista University; M.S. Emporia State University

Auto Technician Program Instructor/Coordinator
A.A.S., Iowa Lakes Community College

Renee Jedlicka (1989)
Speech Professor
B.A., Loras College; M.A., Mankato State University

Debra Jones (1982)
Office Specialist Professor/Coordinator
B.S., M.S., Mankato State University

Eileen Kadow (1999)
Mathematics Associate Professor
B.S., Briar Cliff; M.S.M., Iowa State University

Jan Kamies (1996)
Learning Center Instructor
B.A., Northwestern University; M.A., Morningside College

Linda Kautz (1980)
Enrollment Management Assistant
A.A., Iowa Lakes Community College

Shawn Klemm (2006)
Secondary Auto Mechanics Instructor
A.A.S., Iowa Lakes Community College

Bob Klepper (1997)
Science Associate Professor
B.S., Buena Vista University; M.S., Iowa State University; Ph.D., Columbia Pacific University

Troy Kleve (2006)
Farm Equipment and Diesel Technology Program Instructor/Coordinator
A.A.S., Iowa Lakes Community College

Deb Knight (2000)
Assistant to the Wellness Center Director
A.A., Iowa Lakes Community College

Planning and Development Grantwriter
B.S., Northwest Missouri State University
Faculty & Staff

Michelle Kogel (2005)
Save Program Coordinator
B.S., Iowa State University; M.S., University of Nebraska at Kearney

Leslie Lausen (2006)
Talent Search Advisor
B.A., Buena Vista University

Julia Leupold (2006)
Alternative High School Instructor
B.S., Iowa State University

Alternative High School Lead Instructor
B.S., Iowa State University

Byron Lindell (1997)
Art Associate Professor
A.A., Iowa Lakes Community College; B.F.A., M.A., Mankato State University

Cindy Magee (1995)
Alternative High School Lead Instructor
B.A., Texas Tech University

Lisa Mart (2001)
Project Learning Instructor
A.S., Iowa Lakes Community College

Jason McCloud (2007)
Housing Manager/Head Wrestling Coach/Intramural Coordinator
B.A., Arizona State

Patrick McCoy (1997)
Computer Aided Drafting and Design Associate Professor/Coordinator
B.S., Northwest Missouri State University

Dennis McDonald (1989)
Communications Professor
B.S., Iowa State University; M.S., Mankato State University

Karen Meade (2007)
Science Instructor
A.A., Iowa Central Community College; B.S., M.A., M.S., and Ph.D., University of Iowa

Corey Menning (2003)
Construction Technology Instructor/Coordinator
A.A.S., Iowa Lakes Community College

Lana Miller (1996)
Technology Specialist
A.A., Orange County Community College

Kathy Muller (1979)
Human Resources Coordinator
A.A.S., Iowa Lakes Community College

Judy Naber (2002)
Communications Assistant Professor
B.A., Augustana; M.A., University of South Dakota

Sandra Naig (1987)
Bookstore Coordinator

Sandy Naig (1992)
Food Service Coordinator
A.A., Iowa Lakes Community College

Jason Nell (2001)
Success Center Instructor/Head Baseball Coach
B.A., University of Wisconsin-River Falls; M.A., Loras

Bryan Nelson (1998)
Secondary Broadcast Media Associate Professor/Coordinator
B.A., University of Kansas

Michael Nichols (1993)
Spanish/English Professor
B.A., M.A., University of Northern Iowa

Lori Nielsen (1999)
Special Needs Facilitator
B.S., Mankato State University; M.S.E., Southwest State University

Kyle Norris (2005)
Science/Athletic Training Instructor/Coordinator
B.S., South Dakota State University; M.S., Indiana University

Molly O’Hara (2006)
Business Education Programmer
B.A., Lora College; M.S., Emporia State University

Steve Olerich (2001)
Food Service Coordinator
A.A., Iowa Lakes Community College

Martha Olson (1999)
Nursing Assistant Professor
B.S.N., University of Iowa; M.S., Southwest State University

Laure Oppenheimer (2006)
Nursing Instructor
B.S.N., University of Iowa; M.S.N., Waldon University

Cindy Oviatt (2001)
Administrative Assistant to the President
A.S., Iowa Lakes

Jane Palmer (2005)
Practical Nursing Supervisor
B.S.N., University of Iowa

Jamey Parker (2003)
Law Enforcement/Corrections Assistant Professor/Coordinator
B.A., Wartburg

Carol Peaslee (1992)
Web Specialist/Marketing Writer

Colleen Peltz (1986)
Developmental Studies Professor
B.S., University of Iowa; M.A.E., University of Northern Iowa
<table>
<thead>
<tr>
<th>Name</th>
<th>Position/Role</th>
<th>Education/Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anne M. Peterson (1988)</td>
<td>Mathematics Professor</td>
<td>B.S., Iowa State University; M.S., Mankato State University</td>
</tr>
<tr>
<td>David Peterson (2005)</td>
<td>Biomass Technology Instructor/Coordinator</td>
<td>A.A.S., Bismarck State College; B.S., North Dakota State University</td>
</tr>
<tr>
<td>Gary S. Phillips (1982)</td>
<td>Environmental Studies Professor/Coordinator</td>
<td>B.S., Iowa State University; M.A., Specialist, University of Northern Iowa</td>
</tr>
<tr>
<td>Greg Poe (1989)</td>
<td>Farm Supervisor</td>
<td>A.A.S., Indian Hills Community College</td>
</tr>
<tr>
<td>Rachel Poncelet (2007)</td>
<td>Counselor</td>
<td>A.A. Iowa Lakes Community College; B.B.A., Dakota State University</td>
</tr>
<tr>
<td>Robert Pritchard (2005)</td>
<td>Broadcast Media Specialist Program Instructor/Coordinator</td>
<td>B.S., University of South Dakota; M.S., University of Sioux Falls</td>
</tr>
<tr>
<td>Brian Radtke (1999)</td>
<td>Student Life Facilitator/Head Women’s Basketball Coach</td>
<td>A.A., Iowa Lakes Community College; B.A., University of Iowa</td>
</tr>
<tr>
<td>Diana Refsell (1999)</td>
<td>Counselor</td>
<td>B.A., Upper Iowa University; M.S., Southwest State University</td>
</tr>
<tr>
<td>Denise Reimer (1987)</td>
<td>Sales and Marketing Management Professor/Coordinator</td>
<td>A.A.S., Iowa Central Community College; B.A., University of Northern Iowa; M.S., Drake University</td>
</tr>
<tr>
<td>Greg Reimer (1986)</td>
<td>Information Technology Associate Professor/Coordinator</td>
<td>B.A., University of Minnesota</td>
</tr>
<tr>
<td>Jeannie Reinders (1985)</td>
<td>Financial Aid Specialist</td>
<td></td>
</tr>
<tr>
<td>Tara Rochleau (2005)</td>
<td>Nursing Instructor</td>
<td>A.D.N., North Iowa Area Community College; B.S.N., University of Iowa</td>
</tr>
<tr>
<td>Jolene Rogers (2000)</td>
<td>Planning and Development Coordinator</td>
<td>A.A., Iowa Lakes Community College; B.A., Buena Vista University; M.B.A., Southwest Minnesota State University</td>
</tr>
<tr>
<td>Angie Rose (1992)</td>
<td>Graphic Design Artist/Marketing Assistant</td>
<td>A.S., Iowa Central Community College</td>
</tr>
<tr>
<td>Tammy Rozeboom (1985)</td>
<td>Assistant to the Campus Dean</td>
<td>Diploma, Spencer School of Business</td>
</tr>
<tr>
<td>Gary Schmidt (2000)</td>
<td>Construction Technology Associate Professor/Coordinator</td>
<td>A.S., National Education Center; A.A.S., North Iowa Area Community College</td>
</tr>
<tr>
<td>Michael Schmidt (2005)</td>
<td>Wind Turbine Instructor/Coordinator</td>
<td>A.A.S., A.A., Iowa Lakes Community College; B.A., Mankato State University; M.A., Buena Vista University</td>
</tr>
<tr>
<td>Nancy Schoenewe (1987)</td>
<td>Communications Professor</td>
<td>B.A., M.A., University of South Dakota</td>
</tr>
<tr>
<td>Donald Schouten (1983)</td>
<td>Science Professor</td>
<td>B.S., Morningside College; M.S., Iowa State University</td>
</tr>
<tr>
<td>Rob Schultz (2004)</td>
<td>Auto Collision Technology Instructor/Coordinator</td>
<td>Diploma, Iowa Lakes Community College</td>
</tr>
<tr>
<td>Rebecca Simons (1994)</td>
<td>Business Professor/Medical Secretary Coordinator</td>
<td>A.A.S., A.A., Iowa Lakes Community College; B.A., Mankato State University; M.A., Buena Vista University</td>
</tr>
<tr>
<td>Jamie Simpson (1992)</td>
<td>Early Childhood Education/Child Care Program Professor</td>
<td>B.A., Luther College; M.A., Morningside</td>
</tr>
<tr>
<td>Kathy Skelly (1998)</td>
<td>Social Science Associate Professor</td>
<td>B.S., M.A., Mankato State University</td>
</tr>
<tr>
<td>Gina Splitt (2005)</td>
<td>Nursing Instructor</td>
<td>B.S.N., Creighton University; M.S.N., University of Phoenix</td>
</tr>
<tr>
<td>Anne Stansbury (1981)</td>
<td>Assistant Admissions Director</td>
<td>B.A., Wichita State University, M.P.A., Mankato State University</td>
</tr>
<tr>
<td>Joseph Steele (2007)</td>
<td>Science Instructor</td>
<td>B.S., University of South Dakota; M.A., Iowa State University</td>
</tr>
<tr>
<td>Mary Steele (1988)</td>
<td>RSVP Director</td>
<td>Community service and journalism experience</td>
</tr>
<tr>
<td>Sarah Stokes (2007)</td>
<td>Assistant to the Athletic Director</td>
<td>A.A., Iowa Lakes Community College, B.A., University of Northern Iowa</td>
</tr>
<tr>
<td>Name</td>
<td>Position/Department</td>
<td>Education/Institutions</td>
</tr>
<tr>
<td>-----------------------</td>
<td>------------------------------------------</td>
<td>----------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Miranda Stover (2005)</td>
<td>Nursing Instructor</td>
<td>A.D.N., Western Iowa Tech Community College; B.S., Iowa State University</td>
</tr>
<tr>
<td>Kyle Struve (2007)</td>
<td>Graphic Design Artist/Marketing Assistant</td>
<td>B.A., University of Iowa</td>
</tr>
<tr>
<td>Anthony Stubbs (1989)</td>
<td>Communications Professor</td>
<td>B.A., Loras College; M.A., Mankato State University</td>
</tr>
<tr>
<td>Wayne Sunde (1989)</td>
<td>Parts Department Coordinator</td>
<td>B.S., Mankato State University</td>
</tr>
<tr>
<td>Marsha Swanson (1989)</td>
<td>Early Childhood Education/Child Care Program Professor/Coordinator</td>
<td>B.S., Iowa State University; M.A. University of Northern Iowa</td>
</tr>
<tr>
<td>Richard Swanson (1989)</td>
<td>Agriculture Professor/Coordinator</td>
<td>B.S., M.A., Iowa State University</td>
</tr>
<tr>
<td>Deana Swenson (2006)</td>
<td>Talent Search Coordinator</td>
<td>B.A., University of Nebraska</td>
</tr>
<tr>
<td>Patricia Tedesco (1999)</td>
<td>Counselor</td>
<td>B.A., Wayne State College; M.A., Morningside College</td>
</tr>
<tr>
<td>Tomas Thayer</td>
<td>Upward Bound Coordinator</td>
<td>A.A., Iowa Lakes Community College; B.A., Buena Vista University</td>
</tr>
<tr>
<td>Darrell Todd (2005)</td>
<td>Spencer Campus Buildings and Ground Supervisor</td>
<td></td>
</tr>
<tr>
<td>Scott Tschetter (1997)</td>
<td>Recreation and Leisure Management Program Assistant Professor/Coordinator/Head Volleyball Coach</td>
<td>B.A., Wartburg College</td>
</tr>
<tr>
<td>Anne Van De Walle (2001)</td>
<td>Evening Assistant Food Service Coordinator</td>
<td></td>
</tr>
<tr>
<td>Amy Ver Mulm (1997)</td>
<td>Human Services/Disability Studies Instructor/Coordinator</td>
<td>M.S., Southwest State University</td>
</tr>
<tr>
<td>Dusty Wadlington (2005)</td>
<td>Admissions Counselor/Assistant Men's Basketball Coach</td>
<td>A.A., Iowa Lakes Community College, B.A., Briar Cliff University</td>
</tr>
<tr>
<td>Theresa Waechter (1994)</td>
<td>Administrative Assistant</td>
<td>B.A., Briar Cliff College</td>
</tr>
<tr>
<td>Lois Warner (1996)</td>
<td>Library Media Specialist</td>
<td>B.S., University of North Dakota; M.L.S., Western Michigan University</td>
</tr>
<tr>
<td>Jim Weipert (1998)</td>
<td>Social Science Associate Professor</td>
<td>B.S., University of Northern Iowa; M.S.W., Washington University</td>
</tr>
<tr>
<td>Linda Wiegman (1989)</td>
<td>Career Resource Center Coordinator</td>
<td>B.S., University of Nebraska; M.A., University of Iowa</td>
</tr>
<tr>
<td>Neal Williamsen (1995)</td>
<td>Ag Production Beef/Ag Transfer Professor</td>
<td>B.S., University of Nebraska, Lincoln; M.S., Iowa State University</td>
</tr>
<tr>
<td>Debbie Wilson (1999)</td>
<td>Graphic Design and Technology Associate Professor/Coordinator</td>
<td>A.A., A.S., Iowa Lakes Community College; B.A., University of Northern Iowa</td>
</tr>
<tr>
<td>Peggy Wilson (1978)</td>
<td>Accounts Payable Processor</td>
<td></td>
</tr>
<tr>
<td>Annette Wimmer (1985)</td>
<td>Institutional Assessment, Business Professor</td>
<td>B.A., M.S., University of Wisconsin-Stout</td>
</tr>
<tr>
<td>Al Wudel (1983)</td>
<td>Television Center Station Engineer</td>
<td>A.S., B.S., University of South Dakota at Springfield</td>
</tr>
<tr>
<td>Jeannie Wunder (1986)</td>
<td>Allied Health Professor</td>
<td>B.S.N., Mankato State University; B.S., Iowa State University; M.A., University of Iowa</td>
</tr>
</tbody>
</table>
## Index

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Honors</td>
<td>Board of Trustees</td>
<td>Degree Requirements</td>
</tr>
<tr>
<td>Academic Information</td>
<td>Body Repair</td>
<td>Developmental Studies</td>
</tr>
<tr>
<td>Academic Policies &amp; Procedures</td>
<td>Bookstore</td>
<td>Diesel Mechanics</td>
</tr>
<tr>
<td>Academic Probation</td>
<td>Broadcast Media Specialist</td>
<td>Diploma Requirements</td>
</tr>
<tr>
<td>Academic Standards</td>
<td>Business Administration &amp; Management</td>
<td>Droppe &amp; Adding Courses</td>
</tr>
<tr>
<td>Academic Support Programs</td>
<td></td>
<td>Drug Prevention Program</td>
</tr>
<tr>
<td>Academic Year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accident Insurance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounting Specialist</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accreditation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Activity Directors Orientation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adding &amp; Dropping Courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administrative Assistant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administrative Staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Admission</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Admission: Adult &amp; Continuing Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Admission Policies: Credit Programs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult &amp; Continuing Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult Basic Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult High School Diploma</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(GED) Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult Vocational Supplement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advance Registration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advertising Design (now Graphic Design)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advisors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agribusiness Technology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agricultural Mechanics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture General</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture Transfer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agronomy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alternative High Schools</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Animal Science</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appeal Procedure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applying to the College</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Art</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arts &amp; Science</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASPIRES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Associate Degree Nursing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Associate in Applied Science</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Degree Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Associate of Arts Degree</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Associate in Science Degree</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Associate in Science Transfer Degree</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Athletics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auditing a Class (Options)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auto Collision &amp; Paint Technology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Automotive Technology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aviation/Airport Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Campus Housing &amp; Food Service</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refunds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Career Option Programs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carpentry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Certificate Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Certified Nurse Assistant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change of Registration (Drop &amp; Add)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Childhood Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child Care</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chiropractic Assistant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class Attendance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Classification: Credit Students</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLEP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>College Counseling Services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>College Level Examination Program</td>
<td></td>
<td></td>
</tr>
<tr>
<td>College Parallel/Transfer Program</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(AA Degree)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>College Stores</td>
<td></td>
<td></td>
</tr>
<tr>
<td>College Work Study Programs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication Courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community Service</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completion/Graduation Rates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer Aided Drafting &amp; Design</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer Forensics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer Programming</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conservation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction Technology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continuing Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrections &amp; Parole</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Counseling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course Descriptions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course Numbering System</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course Loads</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credit Assignment in Emergency</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Situations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credit by Examination</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credit for Experiential Learning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credit for Military Service</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credit Load</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crime Prevention on Campus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Criminal Justice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early Childhood Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emergency Medical Technician Basic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emergency Medical Technician Intermediate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English as a Second Language</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental Studies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evening College</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental Learning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extended Learning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty &amp; Professional Staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farm Equipment &amp; Diesel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farm Management: Operations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farm Management: Swine Option</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fashion &amp; Sales</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Follow-up of Graduates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Aid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fine Arts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreign Language</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreign Students</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forestry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Golf Course &amp; Turf Grass Specialist</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grading System</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduation Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graphic Design &amp; Technology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graphic Specialist</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guaranteed Student Loan (Stafford Loan)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health &amp; Life Services General</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health Care Administration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School, Alternative</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Honors Program</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Horticulture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hotel &amp; Restaurant Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human Services/Disability Studies</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Index</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>I</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information Technology .......................... .22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Institutional Record of Student .......................... -7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complaints ........................................... 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insurance (Accident) .............................. 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intramurals ......................................... 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercollegiate Athletics .......................... 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>International Students ............................ 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Iowa High School Equivalency Certificate Requirements .......... 10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Iowa Vocational/Technical Grant .................... 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>J</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Journalism ........................................ 64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Journalism/Photography .......................... 22</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>L</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Law .................................................... 22,64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Law Enforcement .................................. 21,52</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leadership Management ............................ 20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legal Assistant/Paralegal .......................... 22,64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liberal Arts ......................................... 18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Libraries .............................................. 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Licensed Practical Nursing ........................ 32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Livestock Operations .............................. 24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loan Programs ...................................... 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>M</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marine &amp; Small Engine Technology ................. 27,30,70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mass Communication ................................ 69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Massage Therapy ..................................... 31,70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics ......................................... 66</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanics .............................................. 25,42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical Assistant .................................... 27,65</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical Secretary Specialist ..................... 27</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minnesota Reciprocity ............................. 13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motel Management .................................. 26,61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motorcycle &amp; Small Engine Technology .......... 27,31,69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Music .................................................. 6,71</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>N</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Start Program .................................. 12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nurse Aide Level II ................................. 16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nursing ............................................... 25,32,36,77</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nursing Two-year Associate Degree ................. 27,77</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>O</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Office Specialist .................................... 31</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Options in Credit &amp; Grading ....................... 12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orientation .......................................... 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>P</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parent Loan for Undergraduate Students (PLUS) ........... 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parking ................................................ 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parks Management .................................. 21,59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parts Sales &amp; Inventory Control ................... 32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pell Grant ............................................. 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perkins Loan ......................................... 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>S</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supplemental Educational Opportunity Grants (SEOG) ........... 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supplemental Loans for Students (SLS) .............. 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sustainable Energy Resource Management .......... 23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Swine Production ................................... 24</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>T</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical Programs .................................. 24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Third Age College .................................. 17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transcript Requests ................................ 15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transfer of Credits ................................ 13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transfer Students .................................. 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transferring from Other Institutions ................. 13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transferring to Other Institutions .................. 13,16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuition &amp; Fees ...................................... 13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tutoring ............................................... 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>U</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unit of Credit ....................................... 10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>University of Iowa RN-BSN Satellite Program ........ 16</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>V</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Veterans Services .................................. 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vocational Programs ................................ 29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vocational Rehabilitation .......................... 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vocational Short Term Preparatory Programs .......... 16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vocational Supplemental Courses ................... 16</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>W</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Welding ............................................... 33,82</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wildlife Management ................................ 21,59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wind Energy ......................................... 28,33,82</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Withdrawal from All Classes ........................ 11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work Study Program ................................ 5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Catalog 2007-2008

#### Table of Contents
- The College ................................................................. 1
- Academic Policies and Procedures .................................... 8
- College Transfer and Career Option Programs ..................... 18
- Technical Programs ...................................................... 26
- Vocational Programs .................................................... 29
- Course Numbers ......................................................... 34
- Course Descriptions ................................................... 35
- Faculty and Staff ......................................................... 84
- Index .............................................................................. 91

#### 2007-2008 Calendar

### FALL SEMESTER 2007
- Official Registration Days* ............................................ Aug. 16, 20, 21, 22
- Faculty Return ............................................................... Aug. 22
- Offices closed until 1:00 p.m. for fall staff inservice ............... Aug. 23
- Orientation for Freshmen ................................................. Aug. 27
- Evening Classes Begin-4:30 ............................................ Aug. 27
- Day Classes Begin .......................................................... Sept. 3
- Holiday, No Classes, Offices Closed ................................. Oct. 19
- No Classes, Offices Open .............................................. Nov. 21
- Holiday, No Classes, Offices Closed ................................. Nov. 22, 23
- Final Exams (Begin 4:30 p.m., Dec. 13) (weather make-up on 20th) Dec. 13 – 19
- Last Day of Semester ..................................................... Dec. 21
- All College Offices Closed ............................................. Dec. 24 – Jan. 1

### SPRING SEMESTER 2008
- No Classes, Offices Open .............................................. Jan. 2, 3, 4, 7
- Faculty Return ............................................................... Jan. 7
- First Day of Classes ....................................................... Jan. 8
- Holiday, No Classes, Offices Closed ................................. Jan. 21
- No Classes, Employee Inservice ...................................... Mar. 13
- Spring Break, Offices Open ............................................ Mar. 14 – 20
- Holiday, No Classes, Offices Closed ................................. Mar. 21
- No Classes, Offices Open .............................................. Mar. 24
- Final Exams ................................................................. May 5 – 8
- Last Day of Semester/Commencement ................................ May 9

### SUMMER TERM 2008
- Vocational/Technical/Career Option
  - Schedule will vary by program and will be published by the Deans’ Offices
  - Holiday, No Classes, Offices Closed ................................. May 26
  - Holiday, No Classes, Offices Closed ................................. July 4

### Orientation for Freshmen
- Aug. 27

### Last Day of First Session
- June 19

### Last Day of Session
- June 19

### Second Arts & Sciences Summer Session
- Official Registration Days* ............................................ June 20, 23
- First Day of Classes ....................................................... June 24
- Holiday, No Classes, Offices Closed ................................. July 4
- Last Day of Second Session ............................................ July 25
- Summer Commencement ............................................... July 25

* For students not preregistered. This calendar is subject to change.

---

It is the policy of Iowa Lakes Community College not to discriminate on the basis of race, color, religion, age, gender, gender identity, national origin, political affiliation, sexual orientation, ancestry, marital status, disability or any other characteristic protected by applicable law in its education programs, activities, or employment policies as required by Title VI and Title VII of the 1964 Civil Rights Act, Title IX of the 1972 Educational Amendments, Section 504 of the Federal Rehabilitation Act of 1973 and Title II of the Americans with Disabilities Act (ADA) of 1990.

Inquiries regarding compliance with Title IX, Title VI, and/or Section 504 may be directed to Kathy Muller, Human Resources, Iowa Lakes Community College, 19 South 7th Street, Emmetsburg, Iowa 50536 or to the Director of the Iowa Civil Rights Commission, Des Moines, Iowa, or to the Director of the Region VII Office of Civil Rights, Department of Education, Kansas City, Missouri. A formal discrimination complaint process is published in the Student Handbook, Faculty Handbook, and the Board Policies and Administrative Procedures of the College.

All provisions herein contained are subject to change without notice and do not constitute a contract or offer to contract with any person.