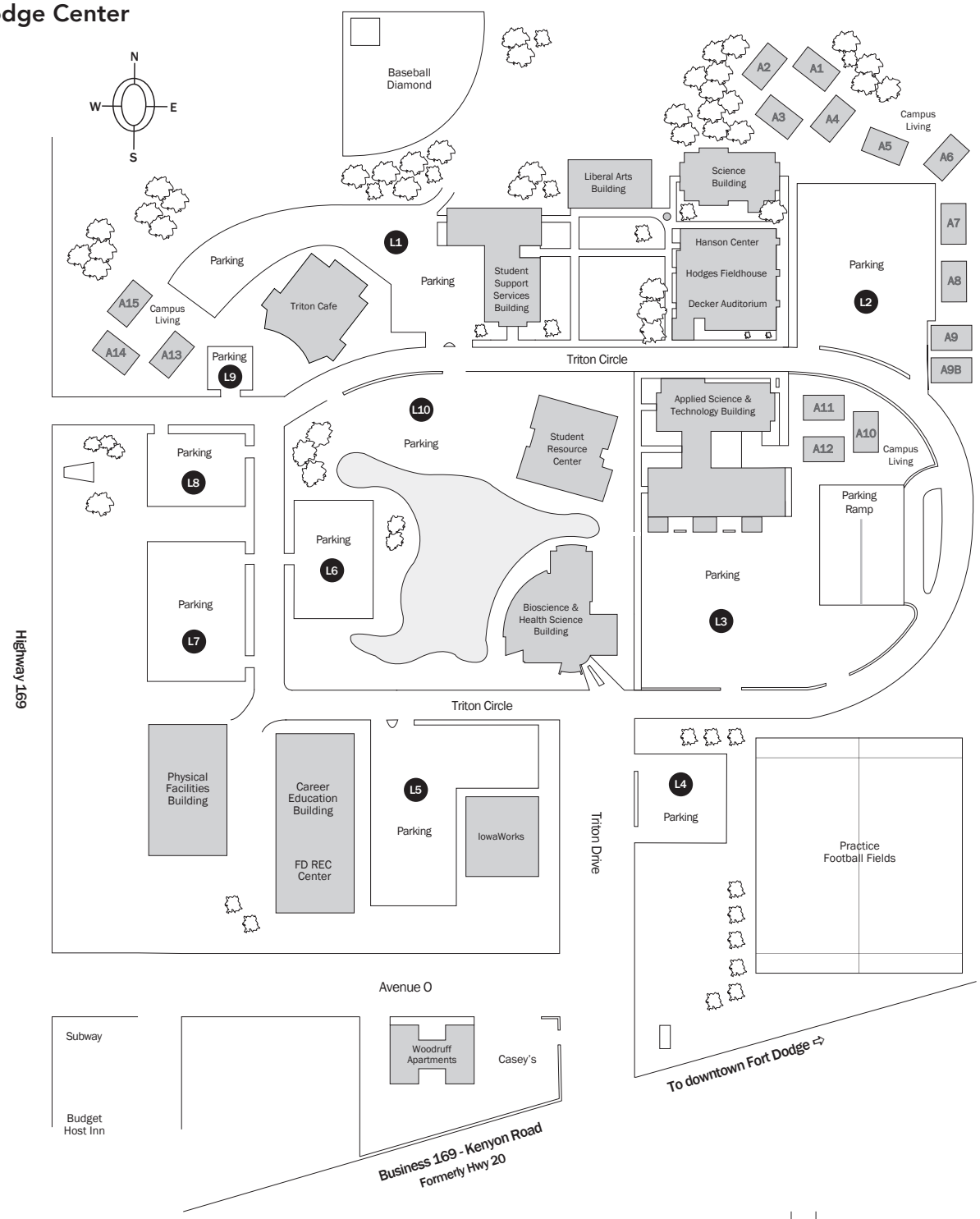
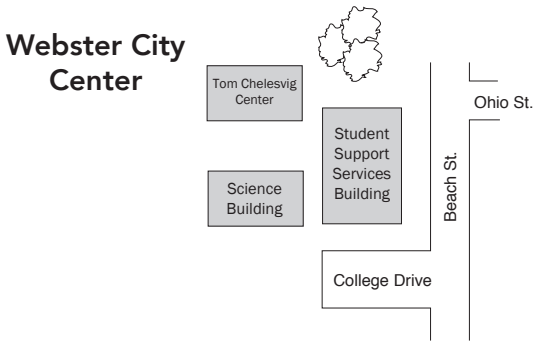
2017-2018 GENERAL CATALOG

IOWA CENTRAL COMMUNITY COLLEGE

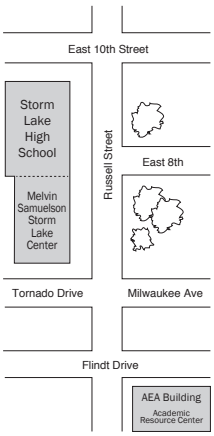
Fort Dodge Center



Webster City Center



Storm Lake Center



IOWA CENTRAL COMMUNITY COLLEGE

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Fort Dodge Center
One Triton Circle
Fort Dodge, Iowa 50501
(515) 576-7201
www.iowacentral.edu

Storm Lake Center
916 North Russell Street
Storm Lake, Iowa 50588
(712) 732-2991
www.iowacentral.edu

Webster City Center
1725 Beach Street
Webster City, Iowa 50595
(515) 832-1632
www.iowacentral.edu

2017-2018 Calendar

First Semester

Aug. 29	First Semester Classes Begin
Sept. 4	Labor Day Holiday
Sept. 5	Last Day to Register and/or Add a Course(s)
Oct. 19-20	Staff Development Days
Nov. 22	Last Day to Withdraw from a Course(s)
Nov. 23-24	Thanksgiving Break
Dec. 18-21	Final Examinations
Dec. 21	Last Day of First Semester
Dec. 22-Jan. 10	Christmas & New Year's Break

Interim Session December 26, 27, 28, January 2, 3, 4, 5, 8, 9, 10

Second Semester

Jan. 16	Second Semester Classes Begin
Jan. 22	Last Day to Register and/or Add a Course(s)
March 12-16	Spring Break
March 29	Staff Development Day
March 30	Good Friday Break
April 13	Last Day to Withdraw from a Course(s)
May 7-10	Final Examinations
May 10	Last Day of Second Semester
May 10	Commencement

Summer Sessions

May 14	Summer Semester Classes Begin
May 28	Memorial Day Holiday - No Classes
June 11	34 Week Applied Science and Technologies Programs End
June 25	36 Week Applied Science and Technologies Programs End
July 4	Independence Day Holiday - No Classes
July 10	38 Week Applied Science and Technologies Programs End
July 17	39 Week Applied Science and Technologies Programs End

Key Extensions at Iowa Central

515-574-ext.# or 1-800-362-2793 or www.iowacentral.edu

Admissions ..... ext. 1008
Business & Industrial Technology Dean..... ext. 1284
Business Office ..... ext. 1066, 1067, 1068, 1069, 1070
Distance Learning Dean ..... ext. 1097
Financial Aid ..... ext. 1030, 1031, 1032, 1033, 1034, 1035
Housing ..... ext. 1086
Liberal Arts Dean..... ext. 1190
Student Records ..... ext. 1025
Transportation Center..... ext. 1967, 1964, 1965, and 1966
Vice-President of Enrollment Management..... ext. 1050
Vice-President of Instruction..... ext. 1149

Table of Contents

GENERAL INFORMATION

Accreditation

Iowa Central is accredited by the Higher Learning Commission, www.ncahlc.org.

August 1967	College granted Federal Fund Eligibility
August 1969	College granted Correspondent Status
March 1971	College granted Recognized Candidate for Accreditation Status
July 1973	College became Candidate for Accreditation under the new policy
March 1974	College granted Accredited Status
July 1979	Accreditation reaffirmed
June 1984	Accreditation reaffirmed
June 2001	Accreditation reaffirmed
September 2002	College granted Associate of Arts Degree Online
July 2005	College granted Associate of Science & Associate of Applied Sciences Degrees Online
November 2011	Accreditation reaffirmed for ten years

Centers

Fort Dodge Center

Instructional services at the Fort Dodge Center include a comprehensive Arts and Science program and several Applied Science and Technology programs. Eighteen collegiate athletic programs and many extra-curricular programs are also offered.

The Fort Dodge Center houses complete library services, the Academic Resource Center, gymnasium, auditorium, student activities center, cafeteria, computer labs, and fifteen resident apartment buildings. The Fort Dodge Center is located on the southwest edge of Fort Dodge off Highways 20 & 169.

Storm Lake Center

Instructional services at the Storm Lake Center include a comprehensive Arts and Science transfer program and two Applied Science and Technology programs -- Practical Nursing and Associate Degree Nursing. Courses in the Career Option programs of Human Services, Business Administration and Criminal Justice are also offered at the Storm Lake Center. Support services are provided through the Academic Resource Center. The Storm Lake Center also offers a wide range of continuing education classes in such areas as real estate and insurance, cosmetology, computer technology, industry training, business management and recreation. The Storm Lake Center is located at 916 North Russell Street.

Webster City Center

Instructional services at the Webster City Campus include a comprehensive Arts and Science program and several Applied Science and Technology programs including Practical Nursing and Associate Degree Nursing. Student Services and an Academic Resource Center provide supportive services. Student organizations and extracurricular activities are also available.

The Campus is located on the west edge of Webster City at the corner of Beach and Ohio Streets. This location provides easy access to local eating establishments and recreational facilities, including a walking trail, fitness center, indoor/outdoor pools, tennis courts and ball diamonds. The small but personable campus consists of three buildings. The Student Support Services building provides a student technology area, student lounge, faculty offices, and testing center. The Science building provides classrooms and a conference/training room for local business and industry. The Tom Chelesvig Center houses classrooms, student technology area, and nursing faculty offices.

Compliances

Alcohol & Drug Abuse Prevention

Iowa Central's goal is to provide a safe and healthy environment for students, employees, and visitors. As part of the Drug-Free Schools and Communities Act, the college aims to educate our community regarding health risks associated with drug and alcohol abuse. Appropriate referral to counseling and health agencies will be made for individuals as needed and sanctions will be imposed on students who violate policy. Sanctions could include written reprimand, suspension or dismissal, and referral for prosecution under local, state, and federal law.

Resources for Substance Prevention and Referral

Iowa Central Community College recognizes drug abuse as a potential health, safety and security problem. The College provides free resources that are available on a confidential basis to help students with substance abuse treatment information and referrals.

Standards of Conduct

It is the policy of Iowa Central Community College that illegal drug use, including the possession, use and sale of alcoholic beverages will not be tolerated and action will be taken. Alcoholic beverages are not permitted on campus nor at any on- or off-campus activity subsidized by the College. This includes off-campus athletic contests. In addition, Iowa Central Community College enforces all state underage drinking laws and laws prohibiting the possession and sale of controlled substances.

More Information

For more specific information on Iowa Central's drug and alcohol abuse prevention information, please visit iowacentral.edu/consumer_info.

Campus Crime

Iowa Central Community College realizes and understands the importance of providing a safe and secure environment for students and employees. The College is supportive of the Federal Student-Right-To-Know and Campus Security Act, Public Law 101-542, and is committed to taking the necessary actions to increase safety on campus.

Under the Act, by September 1st of each year, institutions must publish and distribute to current and prospective students and employees an annual security report that includes statistics concerning the occurrence on campus of certain criminal offenses reported to campus officials. The Act also requires institutions to provide a timely warning to the campus community about crimes that are considered to represent a continuing threat to students and employees. This warning must be done in a manner that will aid in the prevention of similar crimes.

A Campus Security Report will be published annually for the College community and posted on the Campus Security webpage (www.iowacentral.edu/security/index.asp). The College is committed to reviewing these statistics annually and taking the necessary steps to develop and implement additional safety practices or procedures needed to ensure an optimum safe environment for its students and employees.

College Networking Policy

Students who are employed by Iowa Central are expected to comply with Iowa Central employee policies, including the College Networking and Social Networking policy, while so employed. A copy of that policy is found in the Board of Directors' Social Media Policy, Board Policy that can be obtained from the Board Secretary located in the Administrative Offices.

Discrimination Complaint Procedures Policy Statement

It is the policy of Iowa Central Community College to provide for the prompt, fair and impartial consideration and disposition of complaints involving issues of discrimination on grounds of race, religion, sex, age, national origin or disability without fear of reprisal or sanctions. For this purpose, the following complaint procedures are instituted for all Iowa Central Community College employees, students and all persons who have submitted application for employment or admission. Iowa Central Community College assures that full cooperation will be provided to any individual who files a complaint of discrimination. Further, the College is committed to a program of Affirmative Action (AA) and will carry out, as appropriate in each individual case, the terms of the complaint adjustment. Persons wishing to file a complaint may decide to resolve the matter through the informal complaint procedure, the formal complaint procedure, or both, following the steps outlined in the Student Discrimination Complaint Process section. The complainant may contact the AA/EEO Officer at any time for advice. The AA/EEO Officer at Iowa Central is Kim Whitmore, Ext. 1138.

Emergency Procedures
Iowa Central maintains an emergency management plan to guide it through a sensitive or dangerous situation. Examples include, but are not limited to, fires, explosions, natural disasters, and violent criminal events. When a significant incident is discovered or reported, the College will immediately investigate the situation to confirm there is a significant emergency that is causing or could cause a threat to the safety and health of students and/or employees. Law enforcement and other emergency management organizations, as applicable, will be called immediately. If necessary the President will declare an emergency and the college Emergency Incident Command will be established to resolve the situation and support any non-campus organizations called in to resolve the situation. Campus-wide notification will then be made immediately by Triton Alert, which will make notifications via text message, and e-mail. Other notification procedures, such as phone calls and messengers, will be made as time and personnel are available. Action will be taken immediately to isolate the affected area, remove those in the affected area, and stabilize the area pending arrival of emergency response organizations. Based on the specific situation, the College may issue media releases to inform the surrounding community. If law enforcement or emergency management has taken control of the situation, they will make their necessary media releases. When the College determines the emergency has ended and it is safe to return to campus or resume regular activities, another Triton Alert notice will be made. Depending on the duration of an emergency, interim notices via Triton Alert and media releases will be given as information is received. Triton Alert will be tested yearly. A test of the emergency management plan will be conducted at least once a year, usually in coordination with a Triton Alert test.

Family Education Right and Privacy Act (FERPA)
The Family Educational Rights and Privacy Act of 1974 helps protect the privacy of student education records. The Act provides for the right to inspect and review education records, the right to seek to amend those records and to limit disclosure of information from the records. The intent of the legislation is to protect the rights of students and to ensure the privacy and accuracy of education records. The Act applies to all institutions that are the recipients of federal aid administered by the Secretary of Education.

What rights does FERPA afford students with respect to their education records?
- The right to inspect and review their education records within 45 days of the day the college receives a request for access. Students should submit written requests to the registrar's office and identify the record(s) they wish to inspect. The staff of the office will make arrangements for access and notify the student of the time and place where the records may be inspected. If the requested records are not maintained by the registrar's office, the student will be notified of the correct official to whom the request should be addressed.
- The right to request an amendment to the student's education records that the student believes are inaccurate or misleading. Students may ask the college to amend a record that they believe is inaccurate or misleading. They should submit the request in writing to the registrar's office and clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading. 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 will be provided to the student when notified of the hearing.
- The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent. One exception which permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school 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); a person or company with whom the college has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.
- The right to file a complaint with the U.S. Department of Education concerning alleged failures by the college to comply with the requirements of FERPA. The name and address of the Office that administers FERPA is: Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Ave., SW, Washington, D.C. 20202-5920

What is an education record?
An "education record" is any record that is:
1. directly related to a student; and
2. maintained by an educational agency or institution, or by a party acting for the agency or institution.

This includes any information recorded in any way including, but not limited to, handwriting, print, computer media, video or audio tape, film, microfilm, and microfiche.

What is not considered an education record?
- Sole possession records or private notes held by a school official that are not accessible or released to other personnel;
- law enforcement or campus security records that are solely for law enforcement purposes and maintained solely by the law enforcement unit;
- records relating to individuals who are employed by the institution (unless the employment is contingent on their status as a student);
- records relating to treatment provided by a physician, psychiatrist, psychologist; or other recognized professional and disclosed only to individuals providing treatment; and
- records of an institution that contain information about an individual obtained only after that person is no longer a student at that institution.

Who is protected under FERPA?
An "eligible" student under FERPA is a student who is 18 years of age or who attends a postsecondary institution (regardless of parental dependency). These rights begin on the day the student begins attending classes. Formerly enrolled students are also protected under FERPA. Students who have applied but have not attended an institution and deceased students do not come under FERPA guidelines.

When is a student's consent not required to disclose information?
When the disclosure is:
- to school officials who have legitimate educational interest,
- to federal, state, and local authorities involving an audit or evaluation of compliance with educational programs,
- in connection with financial aid; this includes Veterans' benefits,
- to organizations conducting studies for or on behalf of educational institutions,
- to accrediting organizations,
- to comply with a judicial order or subpoena,
- in a health or safety emergency,
- releasing of directory information,
- releasing the results of a disciplinary hearing to an alleged victim of a crime of violence.

What is directory information?
"Directory Information" may be released to third parties without the consent of the student, unless the student has signed and submitted a written request to the Registrar's office to restrict the release of directory information. At Iowa Central directory information includes:
- name
- home and school address and phone number
- e-mail address, both home and school
- date of birth
- major, degrees, honors and awards
- weight and height for athletic team members
- dates of attendance
- enrollment status (e.g. full time or half time)
- participation in recognized activities and sports
- previous education institutions attended

What if I want my directory information held?
Iowa Central will provide a form to be completed by students who want their directory information held. The "Nondisclosure of Directory Information" form must be completed and submitted to the Registrar's Office by the end of the first 10 class days of the term. The "Nondisclosure of Directory Information" will be in effect until the student requests in writing that it be revoked. Students requesting non-disclosure understand that their name will not appear in the graduation program, in sports bulletins, music & theater brochures, honor rolls, home town papers, etc. This form can be obtained at the Registrar's Office.

Can I allow others access to my non-directory information?
Iowa Central also provides a form to be completed by students that want their non-directory information released to others. The "Release of Confidential Information" form is often completed by students to give permission for Iowa Central to speak to their parents regarding, financial aid information, billing information, grades, GPA, class schedules, class attendance, housing information, health information, veteran's information and academic accommodation information. This form is available to students in TritonPass or a paper copy can be picked up at the Registrar's Office and is good for one year, so it must be completed each year.

HIPPA & FERPA
HIPPA applies to Health Care Providers, private benefit plans, and health care clearinghouses. It does not apply to other types of organizations whose receipt or maintenance of health records is incidental to their normal course of business. FERPA does not limit what records a schools may obtain, create, or maintain. It provides safeguards for education records.

The receipt and maintenance of health records is well established. If a health records is used to make a decision in regard to a student's education program (e.g., whether a student should receive extended time for testing; or be exempt from an academic requirement, such as SAP) the health records may be construed to be an education record. In that case the normal FERPA provisions for safeguarding the records would apply. Iowa Central follows requirements for the privacy of health records (HIPPA).

Harassment and Violence

The following section is from Iowa Central Community College Board Policy #223

1. Introduction: As an educational institution, Iowa Central Community College strives to provide a respectful, safe, and non-threating environment for students and employees. The mission of the College is to promote intellectual discovery, physical development, social and ethical awareness, and economic opportunities for all through an education that transforms lives, strengthens community, and inspires progress. Harassment and violence against students, faculty, and staff subverts this mission and will not be tolerated. This policy describes prohibited conduct, establishes procedures for reporting and addressing complainants of incidents of prohibited conduct, and describes educational programs to be conducted by the College to heighten awareness of prohibited conduct described below.

2. Prohibitions: It is the policy of Iowa Central Community College to maintain a learning and working environment that is free from harassment or violence based on race, color, religion, creed, sex, sexual orientation, gender identity, sex stereotyping, marital status, socioeconomic status, military service, national origin, age, disability, and/or any other status protected by federal, state, or local law. The College prohibits any form of harassment or violence against an employee or student based on race, color, religion, creed, sex, sexual orientation, gender identity, sex stereotyping, marital status, socioeconomic status, military service, national origin, age, disability, and/or any other status protected by federal, state, or local law and/or because the person opposed unlawful discrimination and/or participated in an investigation or complaint concerning unlawful discrimination. For purposes of this policy, these prohibitions also apply to Iowa Central Community College trustees, agents, volunteers, contractors, or persons subject to the supervision and control of Iowa Central Community College.

It is a violation of College policy for any student, faculty member, staff member, administrator or other employee to harass any student, faculty member, administrator, or other College employee based on sex stereotyping and/or because of that person's race, color, religion, creed, sex, sexual orientation, gender identity, marital status, socioeconomic status, military service, national origin, age, disability, and/or any other status protected by federal, state, or local law.

It is a violation of College policy for any student, faculty member, staff member, or administrator or other College employee to inflict, threaten to inflict, attempt to inflict, and/or to aid in inflicting violence upon any student, faculty member, staff member, administrator or other College employee based on sex stereotyping and/or because of that person's race, color, religion, creed, sex, sexual orientation, gender identity, marital status, socioeconomic status, military service, national origin, age, disability, and/or any other status protected by federal, state, or local law. Further prohibited conduct applicable to students is described in Board Policy 416, Violence Prevention and Threat Assessment. Also, other prohibited conduct applicable to students, faculty, staff members, administrators, or other College employees is described in Board Policy Number 313, Technology and Board Policy Number 315, Social Media.

This policy covers prohibited conduct occurring both on-campus/center and off-campus:

a. On-campus/center violations: prohibited conduct that occurs on property owned or controlled by the College;
b. Off-campus violations: prohibited conduct that occurs during College sponsored events or during a College affiliated organization's sponsored event (e.g. field trips, social and educational functions, College related travel, athletic related events and travel, and student recruitment activities and travel); and
c. At any location, including through electronic media such as e-mail or social networking websites, and involving any College faculty, staff, or student, provided that:
    1. The incident occurs at a College-sponsored activity or during an event sponsored by an organization affiliated with the College, including a student organization;
    2. The accused or the complainant was acting in an official capacity for the College during the incident,
    3. The accused or the complainant was conducting College business during the incident;
    4. The conduct has the purpose or reasonably foreseeable effect of substantially interfering with the work or educational performance of College students, faculty, or staff;
    5. The conduct creates an intimidating or hostile environment for anyone who is involved in or seeks to participate in College employment, education, on-campus living, or other College-sponsored activities; or
    6. The conduct demonstrates that the individual poses a reasonable threat to College campus/center safety and security.

3. Definitions: Harassment is conduct or speech which is offensive or shows malice toward an individual based on sex stereotyping and/or because of a person's race, color, religion, creed, sex, sexual orientation, gender identity, marital status, socioeconomic status, military service, national origin, age, disability, and/or any other status protected by federal, state, or local law.

Violence as it relates to the content of oral, written, or symbolic speech falls within prohibited activity if:

a. The content consists of those personally abusive epithets which are inherently likely to provoke a violent reaction,
b. The content is a serious expression of an intent to commit an act of unlawful violence to a particular individual or group of individuals, or
c. The content is a threat to a person or group of persons with the intent of placing the victim in fear of bodily harm or death.

Conduct that constitutes a protected exercise of an individual's rights under the First Amendment to the United States Constitution (and related principles of academic freedom) shall not be deemed a violation of this policy.

Harassment as it relates to conduct is intentional conduct directed toward an identifiable person or persons based on sex stereotyping and/or because of the person's race, color, religion, creed, sex, sexual orientation, gender identity, marital status, socioeconomic status, military service, national origin, age, disability, and/or any other status protected by federal, state, or local law that is sufficiently severe, pervasive, or persistent that it interferes with work, educational performance, on-campus living, or participation in a College activity on or off campus.

4. Sexual Harassment: Sexual harassment is a form of sexual discrimination that violates Title VII of the Civil Rights Act of 1964 and/or Title IX of the Education Amendments of 1972. Unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature constitute sexual harassment when:

a. Submission to that conduct or communication is made a term or condition, either explicitly or implicitly, of obtaining or retaining employment or of obtaining the College's program (academic course) and/or other College sponsored activities;
b. Submission to or rejection of that conduct or communication by an individual is a factor in decisions affecting that individual's employment or education; or
c. That conduct or communication has the purpose or effect of substantially or unreasonably interfering with an individual's employment or a student's ability to participate in or benefit from a College program (academic course) or activity sponsored by the College or creating an intimidating, hostile, or offensive employment environment or educational or on-campus living environment.

Sexual harassment subverts the mission of the College and threatens the careers, educational experience, and well-being of students, faculty, and staff. The College will not tolerate sexual harassment, nor will it tolerate unwelcomed behavior of a sexual nature toward members of the College community when that behavior creates an intimidating or hostile environment for employment, education, on-campus living, or participation in a College sponsored activity.

Sexual harassment is especially serious when an instructor harasses a student or a supervisor harasses a subordinate. In such situations, sexual harassment unfairly exploits the power inherent in an instructor's or supervisor's position. However, while sexual harassment often takes place in situations where there is an abuse of a power differential between the persons involved, the College recognizes that sexual harassment is not limited to such situations. Sexual harassment can occur when a student harasses an instructor, when a subordinate harasses a supervisor, or between persons of the same status as students or employees.

Sexual harassment may also include, but is not limited to, conduct described below:

- Gender Harassment is generalized sexist statements and behavior that convey insulting or degrading attitudes including acts of verbal, nonverbal, or physical aggression, intimidation, or hostility based on sex or sex-stereotyping or a person's failure to conform to stereotypical notions of masculinity or femininity even if those acts do not involve conduct of a sexual nature. Examples include suggestive or sexually explicit posters, calendars, photographs, graffiti, cartoons, e-mail, voicemail, and social media including but not limited to Facebook and twitter; and sexually explicit jokes or humor focused toward a particular gender.
- Seductive Behavior is unwanted, inappropriate and offensive sexual advances. Examples include repeated unwanted sexual invitations, insistent requests for dinner, drinks or dates, persistent letters, phone calls and other invitations.
- Sexual Bribery is solicitation of sexual activity or other sex-linked behavior by promising a reward (a better grade, promotion, etc.) for performing the activity or behavior. The proposition may be either overt or subtle.
- Sexual Coercion is sexual activity or other sex-linked behavior by threat of punishment. Examples include negative performance evaluations, withholding promotions, threats of termination, or threats of a failing or lower grade.
- Sexual Imposition includes deliberate assaults or molestation, or unwanted physical contact such as patting, pinching, "friendly" arms around the shoulder or intentionally brushing against another person's body. This includes any intentional sexual touching, however slight, with any object, by a man or a woman upon a man or a woman, that is without consent and/or by force such as intentional contact with the breasts, buttock, groin, or genitals, or touching

another person with any of these body parts, or making another touch you or themselves with or on any of these body parts; and any intentional bodily contact in a sexual manner, though not involving contact with/of/by breasts, buttocks, groin, genitals, mouth or other orifice.
- Other conduct or behavior of a sexual nature deemed inappropriate by a College employee and/or student.

5. Evidence of Sexual Harassment: Behavior that may constitute, or be evidence of, prohibited sexual harassment includes, but is not limited to, the following:
a. Physical assault;
b. Direct or implied threats that submission to sexual advances will be a condition of, or that failure to submit to such advances will adversely affect, employment, work status, promotion, grades, letters of recommendation, or participation in a College sponsored activity;
c. Direct propositions of a sexual nature or persistent unwelcomed efforts to pursue a romantic or sexual relationship, including subtle pressure for sexual activity, an element of which may be repeated staring;
d. A pattern of unwelcomed sexually explicit gestures, statements, questions, jokes, or anecdotes, whether made physically, orally, in writing, or through electronic media (see Board Policy Number 313 Technology and Board Policy Number 315 Social Media Policy);
e. A pattern of unwelcomed conduct involving:
   1. Unnecessary touching;
   2. Remarks of a sexual nature about a person's clothing or body;
   3. Remarks relating to sexual activity or speculations concerning previous sexual experience; or
   4. Stalking another person who reasonably perceives the stalker is pursuing a romantic and/or sexual relationship, and stalking of a sexual nature that is directed at a specific person that would cause a reasonable person to feel fear; or
f. A display of graphic sexual material (not legitimately related to the subject matter of an academic course, if one is involved, or to job requirements) in a context where others are not free to avoid the display because of an employment or educational requirement or without surrendering a privilege or opportunity that others may reasonably expect to enjoy in that location.

In determining whether alleged conduct constitutes sexual harassment, the College will consider all available information and will review the totality of the evidence, including the context in which the alleged incident(s) occurred, to determine whether it is more probably true than not that the harassment in violation of this policy occurred. Although repeated incidents generally create a stronger claim of sexual harassment, a single serious incident can be sufficient. Determinations will be made on a case-by-case basis.

Expression that constitutes a protected exercise of an individual's free speech rights under the First and Fourteenth Amendments to the United States Constitution shall not be deemed a violation of this policy.

Isolated behavior of the kind described above that does not rise to the level of sexual harassment but that, if repeated, could rise to that level, demonstrates insensitivity that may warrant remedial measures. Academic or administrative personnel who become aware of such behavior in the College environment should counsel those who have engaged in the behavior. Such counsel should include a clear statement that the behavior is not acceptable and should cease, information about the potential consequences if such behavior persists, and a recommendation, as appropriate, to undertake an educational program designed to help the person(s) understand the harm caused by the behavior.

6. Courses of Action:
a. Students who feel that they have been the subjects of such harassment should advise the Vice President of Enrollment Management and Student Development or the College's Director, Human Resources/Equal Employment Opportunity (EEO) Coordinator.
b. Staff members should advise one of the following: their immediate supervisor, the appropriate Vice President, or the College's Director, Human Resources / EEO Coordinator.
c. When the College is informed or made aware of a possible harassment situation, an investigation will be conducted as described in the procedure for a Formal Complaint in this policy.

7. Sexual Violence: Sexual violence is prohibited and as specifically addressed in the Violence Against Women Reauthorization Act of 2013, Section 304, Campus Sexual Violence Act provisions amending Section 485(f) of the Higher Education Act of 1965 (the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act). Sexual violence refers to physical sexual acts perpetrated against a person's consent or where a person is incapable of giving consent due to the victim's use of drugs or alcohol or due to an intellectual or other disability. A number of different acts fall into the category of sexual violence, including rape, acquaintance rape, domestic violence, dating violence, sexual assault, stalking, and acts as defined below, as well as aiding acts of sexual violence.

Definitions:
- Consent: Clear, knowing and voluntary participation in sexual conduct by person of the age and intellectual capacity to give lawful consent, and may be given by words or actions, as long as words or actions create mutually understandable clear permission regarding willingness to engage in (and the conditions of) the sexual activity. Consent must be active, not passive. Silence, in and of itself, cannot be interpreted as consent. Lack of protest or resistance does not constitute consent. Consent to any one form of sexual activity cannot be automatically implied to be consent to any other form of sexual activity. Previous relationships or prior consent cannot imply consent to future sexual acts. Persons who want to engage in the sexual activity are responsible for obtaining consent and the clearly giving of consent. Consent should never be assumed.
  Iowa Code provides that the following persons are unable to give consent:
  - Persons who are asleep or unconscious (Iowa Code Section 709.1A);
  - Persons who are incapacitated due to the influence of drugs, alcohol, or medication (Iowa Code Section 709.1A);
  - Persons who are unable to communicate consent due to a mental or physical condition (Iowa Code Section 709.1A); or
  - Generally, minors under the age of 16 (Iowa Code Section 709.4).
- Domestic Violence: Includes felony or misdemeanor crimes of violence committed by a current or former spouse or intimate partner of the victim, by a person with whom the victim shares a child in common, by a person who is cohabitating with or has cohabitated with the victim as a spouse or intimate partner, by a person similarly situated to a spouse of the victim, or by any other person against an adult or youth victim who is protected from that person's acts under the domestic or family violence laws of Iowa.
- Dating Violence: Violence committed by a person:
  - Who is or has been in a social relationship of a romantic or intimate nature with the victim; and
  - Where the existence of such a relationship is determined based on a consideration of the following factors:
    - The length of the relationship,
    - The type of relationship.
    - The frequency of interaction between the persons involved in the relationship; and
  - May occur any time even it first and only date.
- Non-Consensual Sexual Intercourse: Any sexual intercourse however slight, with any object, by a man or woman upon a man or a woman, which is without consent and/or by force. Intercourse includes vaginal penetration by a penis, object, tongue or finger, anal penetration by a penis, object, tongue, or finger, and oral copulation (mouth to genital contact or genital to mouth contact), no matter how slight the penetration or contact.
- Sexual Assault: Subjecting another person to sexual touching that is unwanted.
- Stalking: Engaging in a course of conduct directed at a specific person that would cause a reasonable person to:
  - Fear for his or her safety or the safety of others; or o Suffer substantial emotional distress.
- Sexual Exploitation: Occurs when a person takes non-consensual and abusive sexual advantage of another for his or her own advantage or benefit, or to benefit or advantage anyone other than the one being exploited, and that behavior does not otherwise fall in one of other definitions sexual misconduct offenses, such as, but not limited to, non-consensual video or audio-taping of sexual activity, engaging in voyeurism, prostituting another person, engaging in indecent exposure, or knowingly transmitting a STI or HIV to another person.
- Substantial Threat: reported conduct that by its nature causes a person to reasonably believe that a high risk exist that violent acts and physical harm against another person or persons may occur.

Racial, religious, national origin, marital status, socioeconomic status, military service, age, and disability harassment: Physical or verbal conduct relating to an individual's race, color, creed, religion, national origin, marital status, socioeconomic status, military service, age, and/or disability when the conduct:
a. Has the purpose or effect of creating an intimidating, hostile, or offensive working or academic environment; or
b. Has the purpose or effect of substantially or unreasonably interfering with an individual's work or academic performance; or
c. Otherwise unlawfully and adversely effects an individual's employment or ability to participate in or benefits from the College's programs (academic courses) and/or College sponsored activities.

The use of alcohol and/or drugs will not excuse any behavior that violates this policy.

8. Reporting Sexual Violence: Iowa Central Community College strongly encourages all members of the College community to report incidents of sexual violence to any of the following resources:
a. In the event of an immediate threat, danger, or injury, the reporting person should contact the local authorities by dialing 911 and then contact Campus Security by dialing 515-574-1000;
b. For non-emergencies, the reporting person is encouraged to contact College Campus Security by telephone at 515-574-1000 or by e-mail at security@iowacentral.edu or to contact the Vice President of Enrollment Management

& Student Development by dialing 515-574-1050 or by the e-mail address provided in the College directory. Both the Campus Security and the Vice President of Enrollment Management & Student Development will notify the Director, Human Resources / Equal Employment Opportunity (EEO) Coordinator of the report. This notification does not require that the reporting person file a formal complaint.

c. Students are also encouraged to speak to any member of the College full-time faculty, the Campus nurse whose telephone number is 515-574-1047, or to the College mental health counselor whose telephone number is 515-574-1051. The faculty member or other professional staff member receiving the report should notify the College's Director, Human Resources / EEO Coordinator, by the e-mail address provided in the College directory or other written form immediately.

Confidentiality: Certain College officials have a duty to report sexual assault, domestic violence, dating violence and stalking for federal statistical reporting purposes (such as pursuant to the Clery Act, 20 U.S.C. § 1092). All personally identifiable information is kept confidential, but statistical information must be reported to College Campus Security regarding the type of incident, date, and the location of the incident (using Clery Act location categories and crime category as described in the College's Annual Campus Security Report).

As is a function of any educational institution, Iowa Central Community College must balance the needs of the individual student or the individual employee with the obligation to strive to protect the safety and well-being of the college community at large. Therefore, depending on the seriousness of the reported incident, further action may be necessary, including a campus security alert concerning a reported incident confirmed to pose a substantial threat to members at large of the campus community. The College will make every effort to ensure that a victim or the reporting person's name and other identifying information is not disclosed, while still providing enough information for community members to make safety decisions in light of the danger.

9. Procedure for Filing and Investigating a Formal Complaint of Harassment or Violence: The following procedure is established for processing and investigating formal complaints of harassment or violence by a student, faculty member, staff member, administrator, or other College employee because of on race, color, religion, creed, sex, sexual orientation, gender identity, sex stereotyping, marital status, socioeconomic status, military service, national origin, age, disability, and/or any other status protected by federal, state, or local law, including but not limited to cases of alleged domestic violence, dating violence, sexual assault, or stalking and for determining appropriate disciplinary action.

It is the College's intent that this procedure will provide a prompt, fair, and impartial investigation and resolution process, will treat the complainant with sensitivity and fairness, will be conducted by College officials who receive annual training on the issues related to domestic violence, dating violence, sexual assault, and stalking and how to conduct an investigation process that protects the safety of victims and promotes accountability, and will provide due process to the accused individual if any disciplinary action is to be imposed. In situations where an accused individual faces a relating criminal charge, the College reserves the right to proceed with this procedure as to a formal complaint, including any disciplinary action that may be imposed, at the same time that a criminal process may be proceeding.

Iowa Central Community College will act to investigate all formal complaints, to take appropriate action based on the weight of the totality of the evidence, against any student, faculty member, staff member, administrator, or other College employee when it is determined that it is more probably true than not that harassment or violence in violation of this policy has occurred.

Filing a Formal Complaint - Any person who believes he or she has been the victim of harassment or violence by a student, faculty member, staff member, administrator, or other College employee because of race, color, religion, creed, sex, sexual orientation, gender identity, sex stereotyping, marital status, socioeconomic status, military service, national origin, age, disability, and/or any other status protected by federal, state, or local law may file a written formal complaint with the College's Director, Human Resources / EEO Coordinator.

Confidentiality - As the College's procedure for handling formal complaints is initiated and completed, all involved parties will be expected to respect the sensitive nature of the matter and to protect, to the extent possible consistent with the College's legal obligations, the confidentiality of the complainant, the person accused, and all those involved in the investigation. Iowa Central Community College will respect the privacy of the complainant, the individual(s) against whom the complaint is filed, and the witnesses as much as possible, consistent with the College's legal obligations to investigate and to take appropriate action. Unless otherwise required pursuant to a legal obligation, only people who need to know will be told and information will be shared only as necessary with investigators, the complainant, the accused individual, witnesses, appropriate Administrators, and the Title IX Appeal Team (as applicable).

Complaint Investigation Procedure - It is the College's intent that this procedure will provide a prompt, fair, and impartial investigation and resolution process. The College recognizes that time is of the essence in the investigation, decision making, and appeal processes. The College will make every reasonable effort to conclude its full investigation of a formal complaint, decision by the College's Director, Human Resources / Equal Employment Opportunity (EEO) Coordinator, and processing of any appeal within sixty (60) calendar days from its receipt of a complaint. The time periods specified in paragraphs numbered 1, 2, and 3 below and in paragraph numbered 2 in the Appeal section are institutional expectations. The College's Director, Human Resources / EEO Coordinator will document the reason for extending any specified time period and will provide to the complainant and to the person accused (respondent) periodic written notice of any extension of a specified time period and of the status of the investigation.

The College's Director, Human Resources / EEO Coordinator may appoint an assistant to act in her absence and/or to facilitate the timely resolution of a formal complaint.

a. Within two (2) calendar days (excluding weekends and federal holidays) of the receipt of the formal complaint, the College's Director, Human Resources / EEO Coordinator shall designate the incident investigating official or officials who will investigate the formal complaint (such individual or individuals shall not be the party charged with having committed the alleged harassment and/or violence). If the College's investigator determines to interview the complainant and/or of the accused individual, the person so interviewed may elect to have another person present during the interview, including the opportunity to be accompanied by an advisor of his or her choice and at his or her expense. But in no event may such election interfere with the interview or disrupt the complaint procedure process provided herein.
b. A written statement from the complainant shall be obtained by the designated investigating official(s) within two (2) calendar days (excluding weekends and federal holidays) of their designation and request complainant have no contact with the respondent pending the investigation. The investigating official will then immediately contact the respondent, inform the person of the basis of the complaint and provide the person an opportunity to respond with a written statement. The investigating official shall specifically request that the respondent have no contact with the complainant pending the investigation. The respondent will then have two (2) calendar days (excluding weekends and federal holidays) from the date of notification to make a written response to the investigating official.
c. Upon receipt of the response(s), the investigating official shall report in writing to the College's Director, Human Resources / EEO Coordinator the fact findings of the investigation and shall in writing notify the complainant and the respondent of said written fact finding report within fourteen (14) calendar days (excluding weekends and federal holidays) of the appointment of the investigating official. The College's Director, Human Resources / EEO Coordinator shall review the written fact finding report to determine, by the weight of the evidence, taking into account the totality of all reported evidence, if it is more probably true than not that harassment or violence in violation of this policy has occurred. Upon completion of the review and determination by the College's Director, Human Resources / EEO Coordinator, both the complainant and the respondent shall be notified separately in person and in writing by the College's Director, Human Resources / EEO Coordinator of her decision within seven (7) calendar days (excluding weekends and federal holidays) of receiving the investigating officer's written report. The complainant and the respondent shall be notified if the College's Director, Human Resources / EEO Coordinator is unable to meet with them in person within seven (7) calendar days (excluding weekends and federal holidays) and a meeting will be scheduled as soon as possible. The College's Director, Human Resources / EEO Coordinator will meet separately with the complainant and with the respondent and will address any questions concerning the determination or resolution with each individual during the respective meeting.
d. If it is determined it is more probably true than not that a violation of College policy has occurred, the College's Director, Human Resources / EEO Coordinator will forward her written decision to the administrator with authority discipline or to make recommendations concerning discipline and who will take or recommend appropriate disciplinary action.

Retaliation Prohibited - Iowa Central Community College will discipline or take appropriate action against any student, faculty member, staff member, administrator, or other College employee who retaliates against any person who reports harassment or violence under this policy.

Any student or employee of the College who retaliates against another for testifying, assisting, or participating in any investigation or proceeding relating to harassment or violence under this policy will be subject to discipline. Retaliation includes, but is not limited to, any form of intimidation, reprisal, or harassment.

10. Disciplinary Action: The College reserves the right to take whatever measures it deems necessary in response to a complaint of harassment or violence by a student, faculty member, staff member, administrator, or other College employee because of race, color, religion, creed, sex, sexual orientation, gender identity, sex stereotyping, marital status, socioeconomic status, military service, national origin, age, disability, and/or any other status protected by federal, state, or local law. Such measures include as to employees discipline up to and including recommending termination of employment and as to students include, but are not limited to, modification of on-campus housing arrangements, interim suspension

from campus pending a decision, and expulsion, and as to employees and students reporting the matter to local law enforcement agency in Fort Dodge, Iowa or in the community where another center/campus of the College is located. Not all forms of sexual misconduct will be deemed to be equally serious offenses and the College reserves the right to impose different sanctions, ranging from verbal warning to expulsion of enrollment or to termination of employment, depending on the severity of the offense. The College will consider the concerns and rights of both the complainant and the respondent.

11. Appeal:

a. The individual, in accordance with Board policy, the Master Agreement, the Collective Bargaining Agreement, the Student Handbook, or Employee Handbook, whichever applies, may appeal any disciplinary action resulting from this procedure.
b. In the event the complainant and/or the respondent is dissatisfied with the Director, Human Resources/EEO Coordinator's decision, the individual may appeal in writing to the Title IX Appeal Team within five (5) calendar days (excluding weekends and federal holidays) of the receipt of College's Director, Human Resources / EEO Coordinator decision. The Title IX Appeal Team will consider the appeal within fourteen (14) calendar days (excluding weekends and federal holidays) of its receipt of the written appeal. The Title IX Appeal Team's decision will be the College's final determination. Within five (5) calendar days (excluding weekends and federal holidays) of its determination, the Title IX Appeal Team will provide written notification of its decision to the individual who made the appeal and to the other party (either the complaint or the respondent).

Title IX requires notification be made to the College's designated Title IX Coordinator of the resolution of any potential sexual harassment issues involving students.

Student Complaint/Grievance Policy

For students wishing to file a complaint or grievance, other than those dealing with any form of Harassment or Grade Appeals, please follow the procedures outlined in Board Policy 310 "Handling Complaints Regarding Employees".

www.iowacentral.edu/consumer_info/activities/1/310HandlingComplaintsRegardingEmployees.pdf

Photography and Film Rights Policy

Iowa Central Community College reserves the right to film or take photographs of faculty, staff, and students engaged in teaching, research, clinical practices, sports, and other activities, as well as casual and portrait photography or film. These photographs, films, videos, podcasts will be used in such promotions or publications as catalogs, brochures, posters, advertisements, recruitment, and development materials as well as on the national media for promotional purposes serving Iowa Central Community College. Classes will be photographed only with the permission of the faculty member and students. Release agreements will be produced in writing prior to filming. They will then be signed and kept on file by the Director, Public Information, Website Technology Specialist, Sports Information, or Communications for each respective production project. Such photographs and film—including digital media—which will be kept in the files and archives of Iowa Central Community College, will remain available for use by the College without time limitations or restrictions. Faculty, students, and staff are made aware by virtue of this policy that the College reserves the right to alter photography and film for creative purposes. Faculty, students, and staff who do not want their photographs used in the manner(s) described in this policy statement should contact the Director, Public Information. Faculty and students are advised that photographs taken in public places do not require signatures or authorization for publication. Iowa Central Community College has no control over the use of photographs or film taken by third parties, including without limitation the news media covering College activities.

Social Networking Policy

Academic studies have shown a positive relationship between the use of social networking websites and student engagement in course work, campus organizations, face-to-face interaction with close friends, and in the transition and adjustment to college. In contrast, using online technology at high rates and in certain ways has been shown to have a relationship to poor academic and psychosocial outcomes. Reported dangerous uses of social networking have arisen from miscommunication as it is not possible to perceive the "tone" in online communication, use of words that propagate rumors with a harassing content, and cyber bullying where someone purposely embarrasses, harasses, or torments another.

Iowa Central acknowledges the importance of students using technology to connect, collaborate, and communicate with each other and that online forms of expression are as important to student development as traditional oral and written expression. While engaging in social networking, students should conduct themselves in a respectful, responsible, and accountable manner and in compliance with the Technology at Iowa Central Community College policy, Statement of Nondiscrimination, and the Student Conduct Code published by Iowa Central. Bloggers and commenters can be held personally liable for commentary that is considered defamatory, obscene, proprietary, or libelous by any offended party and for conduct that violates federal, state, or local law such as laws against hate crimes.

Students enrolled in the Iowa Central Health Care Practicum also have the responsibility to safeguard the privacy, security, and confidentiality of all individually identifiable health information transmitted or received in connection participation in the Practicum in accordance with the applicable provisions of the Health Insurance portability and Accountability Act of 1996 ("HIPAA"), as amended, and in accordance with all applicable federal, state and local statutes, regulations and policies regarding the confidentiality of patient health information. Accordingly, students enrolled in that program should not post any confidential or legally protected information.

If a student's concern arising from another student's social networking communication is one of perceived discrimination, abuse, and/or harassment based on age, race, creed, color, sex, sexual orientation, gender identity, national origin, religion, disability, or military service, the student may use the informal or formal complaint procedure described in this Handbook.

Student Conduct Code

All Students

Students are expected to conduct themselves in a responsible manner. Students who enroll accept our policies, regulations and operational procedures. Student behavior, which after due process is found to be disruptive to classes or to destroy the rights of others or property, may result in disciplinary probation or suspension.

Iowa Central Athletes and Students

Each athlete and student participating in Iowa Central activities is expected to attend all classes, to stay free of drugs, and to conduct themselves in a mature and responsible manner while representing Iowa Central Community College. All athletes and activity students are required to sign a Conduct Code before participating in Iowa Central athletics and activities.

Student Rights and Responsibilities

Students of the College have both rights and responsibilities as described in the Iowa Central Community College Student Handbook and in Board Policy. Iowa Central's mission is to promote intellectual discovery, physical development, social and ethical awareness, and economic opportunities for all through an education that transforms lives, strengthens community, and inspires progress. This can occur in an environment that fosters intellectual inquiry within a climate of academic freedom and integrity. Students and instructors are expected to promote these goals in the context of inclusiveness, mutual respect, and tolerance of others, as ideas are explored, facts gathered, opinions weighed, and conclusions drawn.

Process for Student to Express Academic Concerns and Complaints

From time to time, a student may have concerns about such issues as scholastic dishonesty, discrimination, disability accommodations, or grading grievance. If the student's concern relates to:

- Educational records, the student should follow the review/grievance procedures in Board Policy Number 404, Access to Educational Records;
- A finding of scholastic dishonesty, the student should follow the appeal process in Board Policy Number 407, Scholastic Dishonesty;
- A student grade, the student should follow the review procedure in Board Policy Number 408, Student Grade Appeal;
- Conduct by the instructor perceived by the student to be a violation of the College's non-discrimination/harassment policy, the student should follow the complaint procedure in Board Policy Number 414, Discrimination Process; or
- A student may have other academic concerns and complaints about a particular classroom experience, specific curricular matters, instructor conduct in the classroom or in another instructional setting that adversely affects the learning environment, misuse of instructor authority to promote a political or social course within an instructional setting, inequities in assignments, scheduling of examinations at other than published times. If such concerns arise, the student should follow the procedure in Board Policy 415 described below:
  1. Ordinarily, the student should first attempt to resolve the concern with the instructor.
  2. If after meeting with the instructor, the student believes his/her concern is not resolved, or, if the student does not feel, for whatever reason, he/she can directly approach the instructor, the student should meet with the division dean. This meeting shall be scheduled within 10 calendar days after meeting with the instructor. The division dean shall investigate the concern fully, including meeting with the instructor and the student and attempt to resolve the concern.
  3. If the concern is not resolved to the satisfaction of the student, the student may submit within five calendar days after the meeting with the division dean, a written summary of his/her concern to the Vice-President of Instruction. The Vice-President will confer with the division dean, the instructor, and the student in an attempt to resolve the concern.
  4. If the concern is not resolved to the student's satisfaction, the student may within 10 calendar days of the receipt of the Vice President of Instruction's findings request, in writing, that the College President review the concern. The President will review the concern and take such action as he/she deems appropriate including, but not limited to, the recommendation of action to the Board of Directors.

Title IX
As an educational institution, Iowa Central Community College strives to provide a respectful, safe, and non-threating environment for students and employees. The mission of the College is to promote intellectual discovery, physical development, social and ethical awareness, and economic opportunities for all through an education that transforms lives, strengthens community, and inspires progress. Harassment and violence against students, faculty, and staff subverts this mission and will not be tolerated. Students who feel that they have been the subjects of such harassment should advise the Vice President of Enrollment Management and Student Development or the College's Director, Human Resources / Equal Employment Opportunity (EEO) Coordinator. Staff members should advise one of the following: their immediate supervisor, the appropriate Vice President, or the College's Director, Human Resources/EEO Coordinator. More information on Title IX at www.iowacentral.edu/about/titleIX.asp.

Tobacco and Nicotine Vapor Product Use Policy
The Iowa Smokefree Air Act applies to Iowa Central Community College. The purpose of this legislation is "to reduce the level of exposure by the general public and employees to environmental tobacco smoke: and is designed to "regulate smoking in public places, places of employment, and outdoor areas" and "to improve the public health of Iowans." Because the College wishes to provide a safe and healthy environment for students, employees, and visitors, the College shall comply with all state and federal laws by prohibiting the use of tobacco products in College facilities, on College property, and in College vehicles. To protect the health and environment of the College's community, the College also prohibits the use of nicotine vapor products (electronic smoking devices) in College facilities, on College property, and in College vehicles. This policy applies to all College students, employees, and visitors.

Nicotine vapor products (electronic smoking devices) shall mean: Any non-combustible product which contains or delivers nicotine (e.g., Electronic Nicotine Delivery System or ENDS) or any other substance intended for human consumption that can be used to simulate smoking through a vapor or aerosol from the product, that employs a heating element, power source, electronic circuit, or other electronic, chemical, or mechanical means, regardless of shape or size, that can be used to produce vapor from a solution or other substance. Nicotine vapor product includes an electronic cigarette, electronic cigar, electronic cigarillo, electronic pipe, electronic hookah, vapor pen, or other similar product or device.

Other Iowa Central Compliance Information
Other compliance information can be found at the following websites:

Athletic participation rates and support data
http://ope.ed.gov/athletics

Financial Aid
www.studentaid.ed.gov

Graduation Rates
http://surveys.nces.ed.gov/ipeds
http://nces.ed.gov/IPEDS/COOL

Foundation
The Iowa Central Community College Foundation is a non-profit corporation. The purpose of the Foundation is to solicit, receive and manage bequests, gifts, donations, grants and contributions made or for the use or benefit of Iowa Central Community College, its educational and technical programs and its various services. The Foundation distributes funds, including but not limited to scholarships and grants, on the basis of equal opportunity.

The Iowa Central Community College Foundation is managed by its Board of Directors. The Board of Directors consists of 14 members, including one member of the College Board of Trustees and the President of the College. Members are elected for a term of three years.

History
Iowa Central Community College was organized in 1966 with a broad mandate to offer a vast array of educational opportunities to the residents of its nine-county area. Iowa Central was built on the firm foundation of three area junior colleges, which had been operating since the 1920s by the local public school systems: Fort Dodge, organized in 1921; Webster City, 1926; and Eagle Grove, 1928 (The Eagle Grove center was closed in 2004). Iowa Central came into being as a result of the Area School Act passed by Iowa's 61st General Assembly. The legislation authorized two or more county school systems to merge to form an area community college. Nine counties combined to create Area V and Iowa Central: Buena Vista, Calhoun, Greene, Hamilton, Humboldt, Pocahontas, Sac, Webster and Wright.

In 1971, a fourth center was added with the completion of a new building in Storm Lake. The Storm Lake Center continues to grow, offering a variety of community college programs and numerous services to the community. In 1975, Iowa Central partnered with Buena Vista University (then Buena Vista College) in a cooperative venture whereby students can transfer from Iowa Central to complete a four-year degree at the Fort Dodge Center.

Originally founded to provide students with a low cost, high-quality education, Iowa Central continues to expand its excellent reputation with an ever-growing variety of programs, facilities, and thriving student life activities. Iowa Central offers a number of certificates, diplomas, degrees, training opportunities, and continuing education to its communities. This catalog documents the current list of credit programs. Credit courses started being offered in high schools via the Iowa Communications Network (ICN) in 1993 and Iowa Central Television Network (ICTN) in 1987, Insturctional Television Fixed Signal (ITFS) in 1989 and continue to be offered in every high school in Area V as direct instruction, Triton Network in 2012, and online. Several programs and most transfer courses are offered completely online, an initiative that launched initially as a Guided Self-Study course beginning in 1997.

Iowa Central also offers a wide variety of athletic programs and student clubs. Various programs are offered to student athletes with 25 men's and women's athletics available. The College also offers 10 student clubs and organizations.

Much of the college's significant growth period, both in service to students and campus aesthetics, began in the mid-1990s. At that time, the college's enrollment began increasing and has more than doubled today. As a result, facilities have expanded and changed much over recent years:

1995 – Concurrent Enrollment (Earlybird) courses offered
1996 – First apartment-style housing constructed with 16 buildings today
1996 – Trolley Center Mall facility opened
1997 – Ed Barbour Baseball Field
1997 – Softball Field (now the site of the Triton Café)
1997 – Guided Self-Study
1998 – Internet Courses
2001 – TRIO Program
2002 – Dr. John E. Hodges Fieldhouse dedicated
2002 – Career Education Building opened
2004 – Recreational Center
2004 – Storm Lake Center building dedicated to Melvin V. Samuelson Center
2005 – Workforce Development Center Building
2006 – Transportation Center
2006 – Decker Auditorium dedicated
2007 – Webster City Campus Library dedicated to Thomas Chelesvig Center
2007 – Crimmins Center
2007 – General Obligation Bonds
2007 – Willow Ridge
2007 – Fire Tower
2007 – Biofuels Testing Lab
2007 – Parking Ramp
2008 – Hanson Center dedicated
2009 – Agriculture Technology Farm
2009 – Entrance from highway 169 to Fort Dodge Campus
2009 – BioScience and Health Sciences
2010 – Iowa District West Lutheran Building made into parking
2010 – Student Resource Center
2011 – Physical Facilities Building
2012 – East Campus
2012 – Woodruff Apartments purchased
2013 – Dennis Pilcher Court dedicated
2014 – Triton Café
2014 – Culinary construction in Hanson Center
2014 – Career Academy in Eagle Grove

Iowa Central Community College understands that regional growth and prosperity require a community college that is progressive and responsive. Building on its heritage, Iowa Central is positioned to continue meeting the growing educational needs of Fort Dodge and the surrounding area by providing diverse quality educational opportunities that meet our local, regional, and transfer needs.

Institutional Goals

Critical Thinking

- The ability to dissect a multitude of incoming information, sorting the pertinent from the irrelevant, in order to analyze, evaluate, synthesize, or apply the information to a defendable conclusion.

Effective Communication

- Information, thoughts, feelings, attitudes, or beliefs transferred either verbally or nonverbally through a medium in which the intended meaning is clearly and correctly understood by the recipient with the expectation of feedback.

Personal Responsibility

- Initiative to consistently meet or exceed stated expectations over time.

Mission Statement

Iowa Central Community College provides quality educational opportunities in and outside of the classroom.

Philosophy

It is the philosophy of Iowa Central Community College, as a comprehensive community college, to aid in developing our citizens 'capabilities to the maximum. Iowa Central provides a flexible program to satisfy the needs of the individual and the needs of the community. An educational environment is planned to provide experiences for those who desire pre-professional courses, improvement of educational or technical skills, or developmental programs for self-enrichment. This environment can be on campus or on-site.

In concert with this mission, Iowa Central offers

- college transfer courses,
- career and technical training,
- general education,
- recreation and personal enrichment programs,
- economic development,
- community service activities for people with diverse interests, needs, backgrounds and skills and
- adult basic education.

Service Excellence Values

Professionalism

- Accountability: Recognize that work performance directly reflects your character.
- Communication: Practice exceptional internal and external communication.
- Personal Responsibility: Give 100%.
- Adapt: Respond to the ever-changing environment of higher education.

Integrity

- Diversity: Recognize and value individual and cultural differences.
- Ethics: Strive to be honest, fair, and responsible.
- Respect: Inspire mutual respect.
- Consistency: Promote and represent Iowa Central at all times.

Excellence

- Empower: Encourage initiative, creativity, and thoughtfulness in all we do.
- Quality Education: Continuously pursue improvement in courses, methods, and systems.
- Celebrate: Celebrate success and embrace and learn from challenges.
- Exceed Expectations: Strive to be the best you can be at all times.

Vision Statement

For all we serve, Iowa Central Community College strives to be the premier learning community and college of choice, preparing the best citizens and workers for our region and beyond.

We will aspire to:

Contribute effectively to the economic, social, and cultural opportunities of our region.

Work proactively with businesses, civic organizations, high schools and other academic institutions to improve collaboration, develop educational and career opportunities, expand Iowa Central's visibility, and target public and private investment into Iowa Central.

Monitor progress against our priorities, commitments, and aims, using relevant performance indicators, benchmarks, and targets. Through this assessment, we will maintain focus on our planning process to ensure we continue to meet academic and institutional needs.

Plan and budget annually to provide the framework for making the strategic plan operational.

ADMISSIONS

Academic Load

The normal load for a student expecting to graduate in two years with an Associate of Arts Degree in the Liberal Arts and Sciences Division is 15-16 credit hours per semester. Students in career programs are required to follow the offerings of their programs. Students who have a marginal academic background may be limited in the number of hours they may carry. This limitation is to help students succeed and is explained during enrollment. If they show good progress, an increased load will be suggested in subsequent semesters. Iowa Central Community College calculates student enrollment according to the following credit load for Fall and Spring:

- Full Time = 12+ credits
- 3/4 Time = 9-11 credits
- 1/2 Time = 6-8 credits
- Less than 1/2 Time = <6 credits

Summer credit load:

- Full Time = 8+ credits
- 3/4 Time = 6-7 credits
- 1/2 Time = 4-5 credits
- Less than 1/2 Time = <4 credits

These are commonly accepted credit load counts for reporting purposes for accrediting and state agencies.

Admission

Iowa Central Community College is a comprehensive college with an open-door admission policy. There is no application fee for admission to the College.

Ways to Apply

- Apply online at www.iowacentral.edu/admissions
- Request paper application by phone, 800-362-2793 ext. 1008 or 515-574-1008

A student may be accepted by the College, however, some academic programs have additional admissions requirements to be considered for acceptance into those programs including academic qualifications and other criteria. Academic programs that have additional requirements are Associate Degree Nursing, Dental Hygiene, Emergency Medical Services, Medical Assistant, Medical Laboratory Technician, Practical Nursing, Radiologic Technology, and Professional Semi-Truck Driving program. To learn about these additional requirements, refer to the Applied Science and Technology Programs section of this catalog.

To Complete Enrollment Process:

1. **Submit Placement Test Scores**
   Iowa Central uses exam results to determine placement in reading, writing and math courses. Iowa Central will accept test scores from ACT, SAT, COMPASS, ASSET, and ACCUPLACER. The ALEKS test may be taken free of charge (first time) at all Iowa Central centers. Call 800-362-2793 for testing times.
2. **Submit Official College Transcripts**
   Send official college transcript(s) from prior Colleges (including College credit courses taken while attending high school) to the Student Records Office to be evaluated. Official transcripts are important to the advising process and should be mailed prior to starting classes.
3. **Apply for Financial Aid**
   Start early - the financial aid process can take time. Submit the Free Application for Federal Student Aid (FAFSA) as soon as possible after October 1. File online at www.fafsa.ed.gov with Iowa Central's school code (004597). It is necessary to reapply each year.
4. **Apply for Scholarships**
   Iowa Central Community College and Iowa Central Community College Foundation offer a variety of scholarships to students. These scholarships are based on academic achievement, program interest, or activity involvement. Scholarships available can be viewed at http://www.iowacentral.edu/financial_aid/scholarships.asp.
5. **Apply for Housing**
   Fully furnished apartment living is provided at Iowa Central. Students can fill out the housing application online at www.iowacentral.edu/housing. This application will not be processed until the Housing Office receives the non-refundable application fee ($125 Iowa Resident/$300 Non-Resident). Send application fee to Director of Housing or contact the Housing Office at 800-362-2793 ext. 1086 to pay by phone.
6. **Enroll for Classes and Complete Registration**
   Students may enroll by phone, 800-362-2793, in person, or fill out the enrollment form on our website at www.iowacentral.edu/admissions/admissions_application.asp. Confirm intent to attend by completing the registration form. Registration will not be final until the student's minimum balance due is zero.

Admission - International

Prospective international students applying for Admission to Iowa Central must:

1. Complete an International Student Application,
2. Show evidence of their English proficiency by providing one of the following:
   a. TOEFL Score of 450 or higher (CBT 133 or higher), or
   b. An official transcript showing a satisfactory grade (C or better) of a freshman level English course at an approved U.S. college or university, or
   c. A high school transcript from a country where English language is the basic language taught, and
3. Submit a Statement of Financial Support to provide evidence of ability to meet educational and living expenses while a student.

International Students are not eligible for Federal or State-of-Iowa Financial Aid.
Note: All F-1 international students must be enrolled full-time (12 hours or more) to be in compliance with Federal Immigration Laws.

TOEFL

1. Iowa Central Community College requires all prospective international students from non-English speaking countries to submit a TOEFL (Test of English as a Foreign Language) score.
2. International students are expected to score at least 450 for acceptance.
3. Students who score below 500 in the TOEFL must enroll in English as a Second Language or Fundamentals of Writing.
4. International students must stay enrolled in English as a Second Language until they pass the course with a C grade or better.

Advisors

All students are assigned an advisor at the time of the first enrollment. The advisor assists the student in the proper selection of courses and with program and transfer advice. Students are encouraged to consult with their assigned advisor continuously throughout their time of study at Iowa Central. Advisors meet with each student a minimum of twice a year for this purpose.

Financial Aid

The purpose of the Financial Aid Program is to provide assistance to students who might find it difficult to attend college. The need for financial assistance is determined by subtracting the expected family contribution from the estimated cost of attending Iowa Central Community College. The dollar amount of the expected family contribution is determined by the Federal Government through the Financial Aid application process. The Financial Aid Office then subtracts the expected contribution from the total estimated cost for the year and the difference is the financial need. Available financial aid is then awarded to the student. The total financial aid award may not exceed the total estimated cost.

Financial aid is awarded to students contingent of the student attending and successfully completing coursework. Therefore, if a student decides withdraw or to stop attending, students may be required to repay part of the financial aid to Iowa Central or the Department of Education. This policy applies to recipients who are receiving Federal Title IV funds which consist of Pell Grant, SEOG Grant, and Direct Loans. Students may obtain information on this policy from the Financial Aid Office.

For information on our Return of Title IV Funds Policy (R2T4) policy, visit www.iowacentral.edu/financial_aid/forms_docs/R2T4Policy.pdf

Sources of Financial Aid

Federal Pell Grant

- Federally funded gift aid.
- Students must demonstrate need.
- Student must be an undergraduate.

Federal Supplemental Educational Opportunity Grant (SEOG)

- Federally funded gift aid administered by Iowa Central.
- Students must demonstrate need.
- Students must be undergraduate.
- Awards limited to funds available.

Work Study

- Part-time work opportunities.
- Federally or State funded, Iowa Central administered.
- Students must demonstrate need.
- Awards limited to funds available.

Iowa Vocational-Technical Grant

- Iowa resident students.
- Enrollment in Career or Career Option programs.
- Students must demonstrate need.

Iowa Kibbie Grant

- Iowa resident students.
- Enrollment in Career technical or career option programs.
- Students must demonstrate need.
- Awards limited to funds available.

Federal Direct Student Loan
- Fixed interest loans
- Students must demonstrate need for subsidized Direct loan.
- Maximum loan $5,500 for first year, $6,500 for second year (dependent student).

Federal Plus Loan
- Loans available to parents of dependent students.
- Financial need is not required.

Private Student Loans
- Private student loans may be available to students who meet Lender criteria.
- May require creditworthiness and/or co-signer.
- Please visit https://choice.fastproducts.org/FastChoice/home/186500.

Scholarships
Various businesses, organizations and individuals donate money to Iowa Central for the purpose of Financial Aid to students. These awards are made by Iowa Central or the donating organizations. Some awards may be based on need or specific donor criteria. The scholarship application process begins in January/February for fall term enrollment. Inquiries about specific awards may be made to the Financial Aid Office.

Veterans' Benefits
Qualified veterans are eligible for G.I. benefits at Iowa Central. Early arrangements should be made with the Veterans representative in Student Records. In order for GI benefits to be certified each term, students must contact the certifying official to complete the formal request. Veterans must maintain a cumulative GPA of 2.0 to be eligible to receive benefits. All veterans and their immediate family receive in-state tuition rates.

Additional Aid
Students are encouraged to seek information on financial aid in their own communities. Local service clubs and organizations, as well as national and state organizations may have financial aid to offer. The Financial Aid Office is available to assist students in identifying these sources. Non-resident students should check with their home state higher education agency for information about their home state's aid.

Applications and Award Procedures
To be considered for financial assistance at Iowa Central students must
1. Apply and be accepted by the college.
2. Complete a free application for Federal Student Aid (school code is 004597). Students may apply online at www.fafsa.gov
3. Complete any additional documentation requested by Iowa Central. This may include a copy of your/parent's IRS Tax Transcript.
4. Financial Aid Awards are made on a first-come, first-serve basis as students' files are completed. Award notifications are usually made to students in the late spring and early summer.

When to Apply for Financial Aid
Applications are available after October 1 each year. It is necessary to reapply each year. For best considerations of all types of aid, the application must be submitted by March 1. Pell Grants, Direct Student Loans, and Parent PLUS Loans are available after March 1, but other aid may already be committed.

General Eligibility Requirements
All students seeking Financial Aid must
1. Be enrolled or accepted for enrollment in a program at least six months in length,
2. Intend to complete the program and receive a degree related to the educational objective,
3. Have a high school diploma or recognized equivalent,
4. Be a United States citizen or eligible non-citizen,
5. Not be in default for any previous loans disbursed,
6. Not owe a refund on any previous Federal Student Aid, and
7. Maintain satisfactory academic progress.

Financial Aid Satisfactory Academic Progress Policy
Iowa Central Community College is required to establish academic progress standards for students who are federal and state financial aid applicants or recipients. This policy ensures that any student who receives or applies for financial aid is making progress toward a degree. The student's total academic history is monitored regardless of whether he/she has previously received financial aid.

In order to maintain eligibility for financial aid, a student must meet the "Standards Requirements" listed below. Failure to meet these requirements results in the loss of aid. Programs affected by "Standards Requirements" include, but are not limited to:

Federal Pell Grant
IA Voc Tech Grant
Federal SEOG
Federal Work Study
IA Kibbie Grant
Federal Direct Loan
Federal PLUS Loan
IA National Guard Program
Other State Programs

Standards Requirements
1. Pace: Successfully complete 67% of attempted credit hours. This will be measured on a cumulative basis. Example: If the student attempts a total of 24 credit hours the first academic year, the student must satisfactorily complete 16 credit hours. (Example: 24 credit hours x .67 (67%) = 16 credit hours.)
2. Maximum Time Frame: Completion of the academic program in 150% of the published credits. Example: Associate in Arts degree = 60 credit hours. Maximum attempted credit hours permitted to complete this program would be 90. (Example: 60 credit hours x 1.5 (150%) = 90 credit hours.)
3. Minimum Cumulative Grade Point Average:
   - A cumulative GPA of 2.00 must be met.

Additional Information
1. Credit/no credit, course repeats, withdrawals, incompletes, and developmental courses will be included as part of the student's cumulative credit hours attempted for pace and maximum time frame purposes.
2. In computing the cumulative GPA for graduation, only the most recent grade earned in a course, that has been repeated, will be used.
3. Transfer Students are considered to be making satisfactory academic progress for financial aid purposes upon initial enrollment. Upon enrollment, relevant transfer credits and GPA that become part of the student's academic record at Iowa Central will be included in the student's satisfactory academic progress calculation. Students must send all official college transcripts in order to determine eligibility.
4. Courses taken for audit, Advanced Standing, Advanced Placement and hours via the College Level Examination Program will not be included as a part of the student's cumulative credit hours enrolled for maximum time frame purposes.

Monitoring Process
1. Academic progress will be monitored at the end of each term to determine if the "Standards Requirements" have been met.
2. Financial Aid Warning - The first term the student fails to meet the "Standards Requirements" the student will be placed on Financial Aid Warning. This warning period should be utilized by the student to meet the "Satisfactory Academic Progress Standards Requirements." The student will only be given one Warning term at Iowa Central.
3. Academically Ineligible - Students failing to show satisfactory progress during their warning period will be Academically Ineligible. A student may not receive any aid listed above while they are Academically Ineligible.

Reinstatement of Eligibility
1. Complete the number of credit hours necessary to achieve the 67% requirement and/or minimum cumulative GPA needed for their grade level. This will be at the student's own expense. When these hours have been completed, the Financial Aid Office must be notified so eligibility for aid can be reinstated.
2. If special circumstances exist (including but not limited to: death of family member, personal or family illness, family crisis), the student may appeal by submitting a letter stating the reasons the "Standards Requirements" were not met and completing the Appeal Form. Appropriate third-party professional documentation may be required. The Appeals Committee will review the appeal. If the appeal is approved, eligibility for financial aid will be reinstated on a probationary status for one term.
3. If the student fails to meet the "Satisfactory Academic Progress Standards Requirements" after the probationary term, the student will be academically ineligible. The student has the option of completing an Academic Plan that will ensure the student meets the "Satisfactory Academic Progress Standards Requirements" at a specific point in time. If the student is not successfully following the Academic Plan they will no longer be eligible for financial aid at Iowa Central.

Submission Deadlines
Appeals: Fall Term: October 1; Spring Term: February 12; Summer Term: July 6; 8 Week Online: 2 weeks after start of term.
Academic Plans: Fall Term: 5th day of the term; Spring Term: 5th day of the term; Summer Term: June 1; 8 Week Online: 2 weeks after start of term
All Appeals or Academic Plan Worksheets must be turned in prior to the submission deadline to be considered for that term. If the deadline date falls on a weekend/holiday, the Appeal or Academic Plan Worksheet must be turned in prior to the weekend/holiday.

Additional Regulations Affect Veterans Benefit Status
For satisfactory academic progress, the following academic performance criteria apply to all veterans or other students eligible for VA benefits. The Veterans Administration requires that all students receiving VA education benefits maintain satisfactory academic progress. Iowa Central defines satisfactory academic progress as achieving a cumulative 2.00 GPA. If a veteran does not make at least a "C" average (2.00) on all hours pursued, a warning period of one term will be granted. At the end of the warning term a cumulative GPA of 2.00 must be reached. If a 2.00 is not attained, the VA benefits will be withdrawn and the student will be academically ineligible to receive VA education benefits. Reinstatement of eligibility is obtained by either reaching the 2.00 cumulative GPA or a student can submit a letter of appeal. If the appeal is approved, eligibility for the VA benefits will be reinstated on a term probationary status.

Orientation

Freshman orientations are offered throughout the summer. Our orientation gives students and parents the opportunity to learn more about the multiple resources available at Iowa Central and to finalize any necessary paperwork.

Residency Policy Guidelines

In determining a community college resident or non-resident classification, the primary determination is the reason a person is in the state of Iowa. The second determination will be the length of time a person has resided in Iowa. If a person is in the state primarily for educational purposes, that person will be considered a non-resident. The burden of establishing the reason a person is in Iowa for other than educational purposes rests with the student.

A. The Enrollment Management & Student Development Office may require written documents, affidavits, or other related evidence deemed necessary to determine why a student is in Iowa. The burden of proof is upon the student. A student will be required to file at least two documents to determine his/her residency status. No two documents may come from the same source. The following are examples of acceptable documentation.
   1. Iowa driver's license.
   2. Iowa vehicle registration card.
   3. Iowa state income tax return, signed and dated.
   4. Iowa voter registration card.
   5. Proof of Iowa Homestead credit on property taxes.
   6. Written and notarized documentation from an employer that the student is employed in Iowa.

B. If you are not a U.S. citizen but are a permanent resident you must provide a copy of your U.S. Permanent Resident Card with your residency application.

C. All documents must be dated at least 90 days prior to the start of the term you are requesting residency for.

D. These documents must be submitted prior to the first day of the semester for which you are registering. Residency cannot be re-classified once the semester begins.

E. If you are an international student please refer to the Request For Determination of Residency Status Application.

Student Identification Card

Students living off campus must go to the Help Desk to obtain a Photo ID. Each student must have an ID to check out library materials, attend events around campus and pick-up financial aid refund checks in the business office. Students must have Financial Clearance on their bill before an ID is issued. The ID card will have the student's name, ID number, and a photo. The ID is valid for an entire academic year. Students will be issued their first ID at no charge, but will be charged a replacement fee of $5.00 for the first replacement ID, and $20.00 for each additional replacement ID. Replacement fees must be paid in cash at the time the replacement ID is issued.

Tuition and Fees

Tuition and Fees*

Iowa Resident Tuition	$164.00 per hour
Non-Resident Tuition	$241.50 per hour
Student Fee per hour	$14.00
Graduation Fee (per degree, diploma, cert.)	$25.00
Deferred Payment Charge	$25.00

The student fee is the only fee that is refundable on a pro-rated basis.

8-Week Online Programs*

eBook Fee/credit hour	$30
Tuition/credit hour	$315
Tuition/credit hour for military students	$250

*(*Subject to change. Individual courses may also have additional fees.)*

Refunds

Tuition and applicable fee adjustments are made for drops/withdrawals according to the following schedule:

15-week semester refund

Session days 1-5	100%
Session days 6-10	75%
Session days 11-15	50%

Session days are defined as Monday through Friday. Session day count begins with the beginning date of the College term.

Tuition and applicable fee refunds for courses or sessions shorter than fifteen weeks will have proportionally shorter refund periods.

Transfer of College Credit into Iowa Central Community College

When evaluating transcripts from other regionally accredited, post-secondary institutions, Iowa Central considers the guidelines of AACRAO (the American Association of Collegiate Registrars and Admissions Officers). Iowa Central requires a paper copy of an official transcript sent by the other college to the Student Records Office before credit is placed on the Iowa Central transcript.

Transfer courses are evaluated in respect to the program and/or major that the student is seeking at Iowa Central:

- All courses taken, including "Fs", are transferred in and are included in the GPA for students seeking an AA, AAA, AS, or APS degree. Students are encouraged to repeat the "F" courses at Iowa Central in order to improve their GPA.
- Only courses required by the program are transferred in for the AAS degree and the one-year diploma programs.
- Military credit transferring in is based on ACE (American Council on Education) recommendations.
- Sixteen hours of Vocational Technical credit applies toward the 16 hours of elective credit for the AA degree.
- Transfer credit is granted by Iowa Central based on the credits granted at the awarding institution. Quarter hours of credit are converted to semester hours. Iowa Central multiplies the quarter hour by .66 to calculate the equivalent semester hour. Other unusual credit granting options are looked at based on the narrative on the reverse side of the sending college transcript.

Students are responsible for monitoring their transfer of credit into Iowa Central. Students are encouraged to provide course descriptions or other documentation about their transfer credit if they do not agree with the Registrar's evaluation of their credit. Transfer credit appears on the Iowa Central degree audit with the label of TE.

International Transcripts:

Any prospective student (international, permanent resident or U.S. Citizen) who is applying for admission and who has attended a college or university outside the United States must have their international transcript(s) translated by and evaluated by one of the agencies listed below. The evaluation must be sent from the agency directly to Iowa Central Community College, Attn: Student Records Office, One Triton Circle, Fort Dodge, Iowa 50501.

Educational Credential Evaluators, Inc.
P.O. Box 514070
Milwaukee, WI 53203
www.ece.org

Global Education Group, Inc.
1205 Lincoln
Road, Suite 218
Miami Beach, FL 33139
www.globaledu.com

International Education Research Foundation, Inc.
P.O. Box 3665
Culver City, CA 90231
www.ierf.org

Transfer of College Credit to Regent Universities

Iowa's Regent universities and community colleges have joined to create a web portal dedicated to assisting students with the transfer process. The site serves as a one-stop resource for students planning their future. The url for the site is www.transferiniowa.org.

Each year, thousands of students transfer from Iowa community colleges to one of the state's three public universities. Transferring from one college to the next can be a big step, but need not be complicated. The website contains resources helpful in educational planning as well as information for students to discuss with their counselor or advisor.

The number one question transfer students ask is "How will my credits transfer?" Students can learn about how their community college courses transfer to each of the three state public universities by following the links on the website. The website contains resources explaining statewide articulation agreements and individual program-to-program articulation agreements by community colleges. These resources are useful for students planning to transfer as well as counselors and advisors. In addition to online resources, it's always a good idea for students to discuss their plans with both a community college and university counselor or advisor. Contact information for the office or person responsible for transfer and articulation at each postsecondary institution is available on the site.

ACADEMICS

Adult Education/Literacy and High School Equivalency Preparation

The Adult Education/Literacy Program offers tuition free classes for High School Equivalency Diploma (HSED) and English Language Learning (ELL) to adults 17 years and older in the Iowa Central area. HSED classes assist students in completing the five HiSET (High School Equivalency Test) sub test areas in a computer-based test format. These sub test areas are: Writing, Math, Social Studies, Science, and Reading. Classes are offered throughout the program year in Fort Dodge, Webster City, Storm Lake, and Jefferson. Official testing is offered on all campuses. ELL classes are available for students whose first language is not English. ELL classes reinforce life skills in English in the areas of reading, writing, speaking, and listening. ELL class locations are in Fort Dodge, Webster City, Storm Lake, and Eagle Grove. Contact the Adult Education/Literacy Coordinator for further class information.

Advanced Placement, College Level Examination Program and Credit for Prior Learning

Students at Iowa Central Community College may be admitted to courses above the introductory level on the basis of the Advanced Placement Examination (AP), the College Level Examination Program (CLEP) and Advanced Standing credit for career programs.

Advanced Placement Program
Credit is granted for successfully completing the Advanced Placement Program of the College Board with a score of 3.00 or better.

College Level Examination Program (CLEP)
Credit is granted for successfully completing Subject and General Examinations of the CLEP program. The Academic Resource Center has the information pertaining to CLEP testing and the guidelines for taking the tests.

Transfer of Credit Earned by Examination through the College Level Examination Program (CLEP)
The Regents' universities accept credit earned through CLEP Subject and General Examinations as indicated on the participating community college transcript provided certain minimum scores are achieved. For this credit to be validated at the Regents' university, it must be accompanied by at least 12 semester credit hours of course work completed in residence at the community college.

Credit for Prior Learning
Advanced Standing credit allows for students to earn credit for skills they bring into Iowa Central. Iowa Central has approved articulated credit from some training programs such as the State of Iowa, Department of Corrections. Iowa Central also awards credit to those who hold certain licenses and other courses may be tested-out for credit. Fees charged for articulation and test-out vary depending on the credit hour equivalent of the applicable course. $50 is charged for courses of less than 2 semester hours of credit, $75 is charged for courses of 2-4 semester hours, and $100 is charged for courses greater than 4 semester hours. Some tests may also have a materials fee. Fees must be paid prior to testing and students must test within the first five days of the semester if they are currently enrolled in the course and want to test out. Students cannot test out if they were enrolled in the course and withdrew or received a grade.

Certain, non-credit courses taken at other institutions can be transferred in at the discretion of the Program Coordinator. Student must submit appropriate documentation to the Program Coordinator. The Program Coordinator will submit final approval to Student Records. Advanced Standing fees will be applied in these cases.

Certain, non-credit courses taken at Iowa Central Community College can be converted to credit courses when the non-credit course is equivalent to the credit course. Student must submit appropriate documentation to the Program Coordinator. The Program Coordinator will submit final approval to Student Records. No Advanced Standing fees will be applied in these cases.

Please see page 160 for Credit for Prior Learning course list.

Assessment of Student Academic Achievement

Iowa Central Community College is a student-centered, learning-focused institution dedicated to continuous quality improvement in its instructional programs. To ensure that the educational mission of Iowa Central is realized through its curriculum, the Learning Improvement Process (LIP) Team has developed a comprehensive plan of assessment for student mastery of educational outcomes. The purpose and design of this plan is to provide the faculty and administration with evidence linking Iowa Central's educational expectations with students' learning. Such evidence allows the faculty and college to identify strengths and areas for remediation within the curriculum and its delivery system. Areas for improvement are identified and then addressed through academic and institutional planning and budgeting processes. This evidence further provides faculty with information which can be used to improve curricular design and classroom instruction.

Assessment of student academic achievement takes place at all levels within the College. The first assessments encountered by students are placement assessments given to ensure each student's enrollment in the proper writing and math courses. Classroom assessments are the most numerous and are intended to improve the teaching and learning which occur within the class. These classroom assessments are also used to measure student achievement of department and program outcomes as well as institutional outcomes. Pre- and post-exams are given in many classes to establish academic gains in the course. Students are expected to take all assessments activities very seriously because they directly or indirectly affect their future.

The assessment plan is for the purposes of improving learning and advancing the education mission of Iowa Central Community College. The results of assessment are not intended to be measures of the individual student and have no bearing on either a student's successful completion of an individual course or his or her individual progress toward the degree.

The student academic assessment process at Iowa Central has clearly defined goals:

- To confirm that student learning is at the heart of every assessment initiative. Student learning is the common goal that drives every department and program.
- To use the potential of assessment to promote an environment that encourages learning and curricular innovation.
- To monitor general education requirements.
- To provide valuable feedback for curricular and scheduling processes.
- To ensure the institutional mission is being met.

Iowa Central Community College is committed to this process and will monitor the results and use data obtained to improve instruction.

Attendance Regulations

The College places the responsibility of attendance on the student. Regular attendance at classes and laboratory sessions is expected. Faculty are expected to maintain and submit attendance rosters.

Automatic Grade Book Alerts
Faculty can set thresholds for automatic attendance and grade alerts in the WebAdvisor Grade Book. Look for those notifications via email. Student advisors will also get copies of those alerts. For example, you may get an email when you miss two classes in a row or if your grade falls below 60 percent.

Administrative Withdrawal
If class absences exceed 25 percent of scheduled meetings, a student will be administratively withdrawn from a class. Automatic attendance notifications are sent when the number of absences exceed 15 percent and then again at 20 percent. School-sponsored absences do count towards these percentages, but the policy for contacting instructors prior to any such absences to arrange for missed work in advance is in place to prevent such absences from impacting a course grade. Students should talk to instructors about their absences and work with them to make plans for success before the 25 percent is exceeded. Students need to check an instructor's or program's attendance policy in the course syllabus, which may be more specific and grade-related.

Military Service Policy
If the student receives orders from the Iowa National Guard or reserve forces of the United States to active duty the student has the below options to choose from. This policy can also apply to spouses and parents who receive the military orders as well.

Withdraw: Withdraw from all courses and receive a full refund of tuition and mandatory fees.

Complete Courses: Arrange with the instructor/s for course grades or incompletes that will be completed by a later date as per the Iowa Central Community College Incomplete Grade Agreement. In this case, the tuition and fees are assessed in full for the courses.

Combination of Withdraw and Completion: A mix of grades, incompletes, and withdrawn courses is possible depending on the dialog between the instructor and the student based on timeframe of the course and semester. In this case there would be a mix of refunded tuition and fees for the withdrawn courses and full charges of tuition and fees for the graded and incomplete courses.

Student-Initiated Withdrawal
If you no longer wish to be enrolled in a class, you are expected to withdraw from the course using the online drop form which is located in WebAdvisor. Students choosing to not use the online drop procedure must pickup a Change of Enrollment Form in the Student Records Office, obtain the instructor's signature and return the form to the Student Records Office for processing. Failure to process a Change of Enrollment form will result in the grade of "F" on your transcript. See the Student Handbook for the the last day to drop a 15-week course in the Fall and Spring Semesters.

Drop/Add Procedure
Dropping and adding a course: Students who wish to drop or add a course should meet with their advisor. For classes running one full semester, the first five (5) days on the College calendar (not necessarily the first five times a class meets of that semester) have been designated to drop (without a "W" on transcript) and add courses.

Drop/Add dates vary for FlexNet and Flexlab courses and courses that run less than one full semester.

Interim and summer classes must be added no later than the first day of class.

Withdraw and Total Withdraw from College
Withdrawing from a course: The last day to withdraw from a class for Fall 2017 is November 22nd and for Spring 2018 is April 13th. Classes must be withdrawn by these dates so as to not receive an "F" on permanent record. Not attending a class does not constitute a withdrawal. To withdraw from a course, students should log-in to WebAdvisor and click on "Withdraw from Class" to complete the online withdraw form. Students can check the status of their request in the section labeled "Previous Withdraw Requests" on the first screen of the online withdraw. It is the student's responsibility to make sure they have correctly submitted the online withdrawal. Students choosing not to withdraw from a class using the online withdraw procedure must pick up a Change of Enrollment form in the Student Records Office, obtain the instructor's signature, and return the form to the Student Records Office for processing.

Failure to attend class, once registered, does not cancel enrollment in any class or classes. Failure to change enrollment status except according to the above procedure will result in a grade "F" recorded on the permanent record.

A notation of "W" (withdrawal) will be made on the student's permanent record if he/she officially withdraws prior to the published withdraw date.

If you are in need of a copy of your class schedule, stop by the computers across from the Student Records Office.

Withdraw dates may vary for FlexNet and Flexlab courses and courses that are less than one full semester.

Total Withdraw from College: A student who finds it necessary to withdraw from all college courses before the end of the regular term should confer immediately with his or her advisor and then make application to the Student Records Office for total withdrawal. Failure to do so may result in the issuance of failing grades in all subjects for which the student enrolled. There is no withdrawal via telephone. Students receiving Federal Stafford Loans will be directed to do exit counseling at the time of withdrawal. If exit counseling is not completed at the time of withdrawal, the total withdrawal from college will not be processed.

Total Withdraw from College - All FlexNet Courses: Students who are enrolled in all FlexNet courses should log-in to WebAdvisor, click the "Withdraw from Class" link and complete the online withdrawal. Students receiving Federal Stafford Loans, will be directed to online exit counseling and the deadline for completing exit counseling will appear on the page. If the student fails to complete exit counseling before the deadline, the withdraw request is deleted from the system. The student will then have to fill out a new request and the withdraw will be processed as of the new request date. Once exit counseling is completed, the student returns to the "Withdraw from Class" link to submit the exit counseling confirmation number.

Audit Policy
Students may be allowed to audit certain courses. Students who audit will not be held responsible for lesson assignments or tests and will not receive credit for the course. The audit fee is the regular course fee. A course may be audited before or after it is taken for credit. The decision to audit must precede registration. The audit grade is "N".

Business and Information Technology Center (BIT Center)
The BIT Center is a computer lab located on the first floor of the AST Building (Applied Science and Technology Building). The BIT Center offers 15-16 self-paced courses per semester. These courses are Business Department courses and several are required for some of the programs in the Business Department. Students enrolled at the start of the term will have 15 weeks until the end of the term to complete a course. Students may enroll after the start of the term; however, they will only have the remainder of the term to complete coursework. Regardless of when a student enrolls, all coursework must be submitted by the last day of the term. Depending on individual pace, students may complete a course in less than 15 weeks.

Students receive a Learning Packet with course information and assignments. Assignments can be completed on any computer with the required software or in the BIT Center. Testing must be done in the BIT Center. Instructors are available for assistance during the hours that the BIT Center is open.

Check the Iowa Central Web Site for the current course listing and for the BIT Center hours.

Course Cancellation
The college reserves the right to cancel any courses that have insufficient enrollment.

Developmental Education
The goal of Developmental Education is to provide each student with an adequate background in basic skills so that he/she will be successful in college-level courses and ultimately in the workforce. In order to properly place students with diverse skill levels, Iowa Central requires either ACT, SAT, ALEKS, or Accuplacer test scores from all students. If it is determined that the student is underprepared in reading, writing, or mathematics skills, he/she is required to enroll in Basic Reading, Reading I, Fundamentals of Writing, Elements of Writing, Fundamentals of Math, or Elementary Algebra. Placement is based on the tables located on page 157. Developmental courses utilize a classroom lecture and lab format. Developmental course credit <100 does not meet graduation credit requirements for certificate, diploma, general studies, or associate degree programs.

Communications Department Guidelines for Advancing in Developmental Courses.
Students wanting to advance to the next level of writing or reading from Fundamentals of Writing (ENG-096), Basic Writing (ENG-025), and /or Basic Reading (RDG-048) must have a "CP, " obtain the necessary post-test score, or in extenuating circumstances, obtain a letter of recommendation from the instructor indicating that the student may be advanced. Students in Elements of Writing (ENG-101) must earn a "C" or better or obtain the necessary post-test score.

Math Department Guidelines for Advancing in Developmental Courses
Students wanting to advance to college-level classes from Fundamentals of Math (MAT-045) or Elementary Algebra (MAT-063) must earn at least a "CP" or the necessary placement score to advance to the next level.

Discontinued Programs/Courses
Students who request a degree from a discontinued program at Iowa Central will be advised regarding their options for completion of a degree. Iowa Central does not guarantee the availability of discontinued courses one year after Board action to discontinue.

Distance Learning

Iowa Central Community College serves a diverse student population, with different needs regarding accessibility and convenience of college credit offerings. In an attempt to offer students a variety of methods by which to complete college credit coursework, Iowa Central offers internet, Triton Network, and hybrid classes. Students can take classes this way exclusively, or combine traditional and alternative deliveries.

The College began offering internet courses during the Fall 1998 semester. Convenience to students and flexibility of scheduling are two benefits of distance learning courses. The College strongly recommends that only students with a 3.0 or higher GPA enroll in FlexNet or Online courses. The College has been approved by the Higher Learning Commission to offer Associate Degrees via the internet.

FlexNet Courses

Students can enroll in FlexNet courses at any time throughout the term, except within the last four (4) weeks of the term and as long as there is space available in the course. Regardless of when they enroll in the term, all students must complete FlexNet coursework by the last day of the term. Contact the Distance Learning Office for specific dates.

Online Courses

Online courses are very structured in format design, meaning the courses begin and end with the semester dates. Assignments and discussion postings are required for each week of the course, and students must complete and submit work at the end of each week. Students must enroll, make full payment, and login to online courses by the end of the add/drop period (first five days of the semester) to avoid being administratively withdrawn. Contact the Distance Learning Office for specific dates.

8-Week Online Program

Iowa Central offers students the opportunity to enroll and complete Associate Degrees via the 8-Week Online program. In most programs, students enroll in two courses over an eight-week block. The programs are completed 100% via the Internet and offer the flexibility of "attending" class without traveling to campus. The courses are designed to allow students the convenience of working at a time that best fits the needs of the student. Discussion topics are required weekly along with assignments and activities. Each student is assigned to an Adviser. This Adviser works closely with each student as he/she enrolls in one of the programs. The application process, tuition, and other processes may vary due to the nature of the delivery system. For tuition and various fees, please refer to section "Tuition and Fees" in the catalog.

Programs offered via 8-Week Online delivery:
Computer Networking Technology A.A.S Degree began in 2005
Business A.P.S. Degree began in 2006
Criminal Justice A.A.S. Degree began in 2006
Associate of Arts Degree began in 2007
Health Care Administration A.P.S. Degree began in 2008
Human Services A.P.S. Degree began in 2008
Supply Chain Managemant A.A.S. Degree began in 2011

Triton Network System

The Triton Network System is a Polycom system that allows courses to be offered via video conferencing. Students at receiving sites view the instruction on the network and interact live with faculty and other students.

Earlybird Courses

Iowa Central Community College and Area V high schools have formed partnerships to offer high school students opportunities to earn college credits while still in high school. Juniors and seniors are able to enroll and complete Iowa Central courses at their high school, on an Iowa Central campus, or online.

The high school faculty who meet community college faculty credentials are recognized as adjunct faculty and they must follow to the approved Iowa Central syllabus to offer the college-level course within the high school's schedule.

PSEO (Post-Secondary Enrollment Options)

Students attending a public or accredited nonpublic school who are in the 11th or 12th grade are eligible to participate. Students need to consult with their high school to determine other eligibility requirements. Courses offered within PSEO are offered during the Fall and Spring semesters.

Other Partnerships

A Charter School partnership with Storm Lake Community School District offers access to various programs available at Iowa Central. The institution also offers courses through a Regional Career Academy located in Eagle Grove.

Distance Learning Financial Aid Attendance Policy

The following information only applies to students who have financial aid (scholarships, grants, or loans). Federal regulations state that a student must be making academic progress in their classes in order to be eligible for financial aid to be released. In a FlexNet course, attendance requirements are met by submitting work, such as an assignment, quiz, or test in each FlexNet course. The Financial Aid Office will verify established attendance in each student's course/s. This requirement does not require students to submit work each and every week in a FlexNet course.

Please note: In situations where a student unofficially withdraw from courses, Iowa Central may be required to return some financial aid to the Federal government. For financial aid purposes, a student unofficially withdraws when the student stops attending class and does not officially complete the withdraw process. The student who unofficially withdraws will have an "F" recorded on the student's transcript and the unofficial withdraw may adversely affect future financial aid eligibility. For questions regarding this policy, please contact the Financial Aid Office at 1-800-362-2793.

Do not confuse this with Online (OL) courses. Online courses have different attendance policies.

Economic Development

The Economic Development Department at Iowa Central Community College works to enhance economic vitality and ensure a competent/competitive workforce for the region we serve. Iowa Central provides economic development and training services that assist businesses in growth and development, increase productivity and enhance employee skills. The Economic Development Department utilizes and manages the Iowa New Jobs Training Program (260E) and the Iowa Jobs Training Program (260F) to provide financial assistance to train new or incumbent workers. Customized training is developed and designed specifically to meet the training needs of companies in the region we serve. Economic Development programs are also used to encourage the expansion of existing businesses as well as to attract new employers to our area.

Educational Opportunities

College Transfer

Iowa Central Community College offers the first two years of a baccalaureate program to students who intend to transfer to a four-year college. Students desiring to transfer should consult with their advisor prior to enrolling to meet the requirements of receiving institutions. Below is a list of degrees offed at Iowa Central.

Associate of Arts

An Associate of Arts Degree is awarded to the student successfully completing 60 semester hours of course work with a minimum G.P.A. of 2.00. Requirements for the Associate of Arts selected from the general requirements are:

1. Nine (9) hours of Communications (Composition and Public Speaking);
2. Eight (8) hours of mathematics and science, at least one (1) course from each area;
3. Nine (9) hours of social sciences from any two of three areas;
4. Nine (9) hours of humanities from any two of four areas;
5. Five (5) hours of distributed courses from the four areas above; and
6. One (1) hour of instituional requirement.
7. Three (3) hours of computer literacy requirement.

An additional sixteen (16) semester hours are required:

1. Sixteen (16) hours of electives from Arts & Science, or
2. Sixteen (16) hours from applied sciences and technologies courses, or
3. Sixteen (16) hours of combined electives from one (1) and two (2) above.

Developmental courses (numbered <100) do not count toward a degree.

Associate of Science

An Associate of Science Degree is awarded to the student successfully completing 60 semester hours of course work with a minimum G.P.A. of 2.00. Requirements for the Associate of Science selected from the general requirements are:

1. Nine (9) hours of Communications (Composition and Public Speaking);
2. Twenty (20) hours of mathematics and science, at least one (1) course from each area;
3. Six (6) hours of social sciences from any two of three areas;
4. Three (3) hours of humanities from any of the four areas;
5. Two (2) hours of distributed courses from the four areas above; and
6. One (1) hour of institutional requirement.
7. Three (3) hours of computer literacy requirement.

An additional sixteen (16) catalog hours are required:

1. Sixteen (16) hours of electives from Arts & Science, or
2. Sixteen (16) hours from applied sciences and technologies courses, or
3. Sixteen (16) hours of combined electives from one (1) and two (2) above.

Developmental courses (numbered < 100) do not count toward a degree.

Associate of Professional Studies
An Associate of Professional Studies Degree - Career Option is awarded to the student successfully completing a specific career option program with a minimum G.P.A. of 2.00. Developmental courses (numbered <100) do not count towards a degree. Students enrolled in career option programs are eligible to enter the job market or transfer to a four-year college or university.

Associate of Applied Arts
An Associate of Applied Arts Degree is awarded to the student successfully completing a specific applied arts curriculum of at least two years with a minimum G.P.A. of 2.00. Developmental education courses (numbered <100) do not count toward a degree.

Associate of Applied Science
An Associate of Applied Science Degree is awarded to the student successfully completing a specific applied science and technology curriculum of at least two years with a minimum G.P.A. of 2.00. Developmental education courses (numbered <100) do not count toward a degree.

Iowa Central Community College offers a wide variety of applied science and technology programs in the areas of Health Sciences, Business Technologies, and Industrial Technology. Placement services are available to students seeking employment.

Associate of General Studies
An Associate of General Studies Degree is awarded to the student successfully completing any 60 semester hours with a minimum G.P.A. of 2.00, provided they are not eligible for or previously earned an Associate's Degree. Developmental education courses (numbered <100) do not apply toward the 60 hours.

Diploma
A Diploma is awarded to the student successfully completing an applied science and technology or career option curriculum of less than two years with a minimum G.P.A. of 2.00. Developmental education courses (numbered <100) do not count towards a degree.

Certificate
A certificate is awarded to a student in less than one year with a minimum G.P.A. of 2.00.

EMS Training
Iowa Central Community College is an advanced provider of Emergency Medical Services (EMS) training, approved by the Iowa Department of Public Health Bureau of Emergency & Trauma Services section. Courses offered include Emergency Medical Responder, Emergency Medical Technician, Advanced EMT, and Paramedic. Skills taught will range from basic stabilizing techniques, patient assessment and examination to all advanced emergency medical care skills including cardiac evaluation and treatment, medication effects and treatment, and advanced airway management techniques.

Enrollment and Assessment
The Enrollment Services Staff enroll new, current, former and transfer students. They acquaint the students with the courses they will be required to take to meet requirements for program completion. Students are to enroll within the dates given in the college calendar. Consult the college calendar for the last day to register and/or add a course(s).

Assessment Q & A
Who is required to present scores?
Scores are required for all first-time, full-time students; all part-time students taking math or writing; and all students whose programs require it (such as health programs).

What test scores are accepted, and why are scores necessary?
A necessary part of this preparation is being aware of the students' strengths and weaknesses and their goals. In order to obtain this information, Iowa Central requires ACT, SAT, COMPASS, ASSET, ACCUPLACER, or ALEKS scores to guide students to appropriate coursework and to eventual academic success. ACT or SAT test have usually been taken during high school. For those who have not taken them, Iowa Central offers the ACCUPLACER and ALEKS tests free of charge (first time) to its students (there is a fee for testing for other schools).

In what subjects will I be assessed?
Students need to have scores from the three areas of writing, reading, and math. (We do not use science scores).

Who is exempt from presenting scores?
Any transfer student with a 2.0 GPA in college level English or a 2.0 in college level math (from a regionally accredited institution) should be exempt from that specific assessment.

Any person who holds an Associates of Arts, Science or Professional Studies, Bachelor's, Master's, or Doctorate degree (from a regionally accredited institution) should be exempt.

Industrial Tech students are exempt from presenting placements scores. (Ag transfer student need to present placement scores).

International students with a score of at least 450 – (Paper-based test), 133 – (Computer-based test), or 45 – (Internet-based test) on their TOEFL should be required to take ALEKS, ACCUPLACER or to present ACT, COMPASS, SAT, or Iowa Assessments scores. However, those with less than 450, 133, or 45 should enroll in Basic Writing - ENG-025 and take the assessment at a later date.

Please refer to the Mandatory Placement Chart on page 157 for specific placement information.

General Education
Definition
General education is the curricular component that promotes lifelong learning regardless of a student's specific technical, vocational, or professional field. General education fosters learner development in the following areas: effective communication, , critical thinking, and personal responsibility.

Overview
For the Associate of Applied Science (AAS) Degree, Associate of Applied Arts (AAA) Degree, and the Diploma (D), the mastery of the general education skill groups will be achieved by enrollment in these courses plus some of the courses specific to a program.

Associate of Applied Science (AAS) Degree: Awarded upon the completion of a state-approved CTE program intended to prepare students for entry-level technical occupations. It shall consist of between 60 and 86 semester credit hours. Of those, a minimum of 12 semester credit hours must be general education to include at least one course from each of the following areas: communications, social science or humanities, and science or mathematics. The technical core component shall constitute at least 50% of the program's credits.

Associate of Applied Arts (AAA) Degree: Awarded upon the completion of a state-approved CTE program intended to provide students with skills for employment in a specific field such as art, humanities, or graphics design. This degree consists of between 60 and 86 semester credit hours. Of those, a minimum of 12 semester credit hours must be general education to include at least one course from each of the following areas: communications, social science or humanities, and science or mathematics. The technical core component shall constitute at least 50% of the program's credits.

Diploma: Awarded upon the completion of a state-approved CTE program that is a coherent sequence of courses consisting of 15 to 48 semester credit hours, including at least three semester credit hours of general education from any of the following areas: communications, social science or humanities, science or mathematics. A diploma may be a component (option) of, and apply toward, subsequent completion of an AAS or AAA degree.

Grades

Requital of Grades

Requital of Grades is the process of ignoring a student's prior grades when calculating the credits earned, the quality points, etc. and the grade point average. This new calculation is used for the purposes of graduation and other honor considerations.

Eligibility Guidelines:

1. Students must not have attended any institution of higher education during the previous two years.
2. Submit formal application for requital to the Registrar prior to completing 12 credit hours (excluding developmental credits). Students may pick up an application in the Student Records Office.
3. Students must earn a minimum GPA of 2.00 for 12 credit hours before grade requital will be indicated on the transcript.
4. The requital of grades may be granted only once at Iowa Central and a person's entire transcript will be requited.

Results:

1. If approved, the notation appears on the transcript and the calculation of the GPA and credit hours earned begin from the semester of requital and is inclusive of the aforementioned 12 credit hours.
2. For financial aid purposes, the entire transcript, including requited grades, will be considered.

Grading System

A—Excellent .....4 Grade Points
B—Above Average .....3 Grade Points
C—Average.....2 Grade Points
D—Below Average.....1 Grade Point
F— Failure.....No Grade Points
W—Withdrawal. No Grade Points or Credit
I—Incomplete. No Grade Points or Credit
L—Advanced Standing
N—Audit
X—Repeat - (POISE - credit taken prior to September 2004)
R—Repeat - (Datatel - credit taken after September 2004)
P—Passing
Q—No Credit/No Pass
T—Credit by Testing

Grade Designations for Developmental Courses:

AP..... Excellent / Not in GPA
BP.....Very Good / Not in GPA
CP .....Average / Not in GPA
DP .....Below Average / Not in GPA
FQ..... No Pass / No Credit

Changing Grades

A change of grade, not including a "W," will be accepted by the Registrar only if properly signed and dated by the instructor who taught the course and the division dean. A "W" grade will not be changed.

A Grade Change form will be accepted only for the following reasons:

1. An error in grade calculation
2. The terms of an Incomplete Grade Agreement were finished
3. A successful resolution of the Student Grade Appeal

Incomplete Grades

An incomplete ("I") grade in a course has an immediate effect on a student's semester GPA. A meeting arranged by the student with the instructor is held to discuss the reason for the incomplete grade. A contract between the student and instructor, stating the details and time schedule of work that is to be made up, must be agreed upon and signed, and must be submitted prior to the end of the term. The maximum time allowed for an incomplete is one year from the start date of the class. After all work is completed, the instructor will make the proper grade changes for the student's permanent record. Incompletes are approved only for unusual circumstances with appropriate documentation.

Final Grades

Student grades are distributed to Iowa Central students via WebAdvisor.

Student Grade Appeals

A student who believes a course grade he/she has received is inaccurate may seek an appeal as follows:

1. Within 60 calendar days following the end of a course, the student will inform the instructor in writing of questions concerning course grade. The writing will address questions concerning the criteria and procedures the instructor used in determining the grade, the process by which it was assigned, and to request error correction, if any, in the grade.
2. Within 14 calendar days after the instructor's receipt of the student's written questions, the instructor will offer to meet with the student to attempt to resolve the questions concerning a grade.
3. If after the discussion with the instructor, the student believes that the grade is still inaccurate, the student will meet with the department Dean. This meeting must be scheduled within 10 calendar days after the instructor has offered to meet with the student. Before meeting with the Dean, the student will submit in writing to the Dean his/her questions regarding the grade. The Dean shall meet with the instructor and the student separately and/or together in an effort to resolve the questions regarding the grade.
4. If the steps above do not resolve the questions concerning the grade, the student may submit his/her written questions concerning course grade to the Vice President of Instruction no later than 10 calendar days after meeting with the Dean. Within 14 calendar days after receipt of the written questions from the student, the Vice President of Instruction will submit to the student, the instructor, and to the Dean a written decision concerning the appeal of the grade.
5. If the appeal is not resolved to the student's satisfaction, the student may within 10 calendar days of the receipt of the Vice President of Instruction's findings request, in writing, that the College President review the appeal. The President will review the appeal and take such action as he/she deems appropriate including, but not limited to, the recommendation of action to the Board of Directors.

Graduation

Commencement exercises are designed to provide formal recognition to students who have satisfied the requirements for a certificate, diploma, or associate degree. Students are encouraged to attend the Commencement ceremony at the time of graduation.

Students who plan to receive a certificate, diploma, or associates degree must declare to graduate with Student Records by completing the Graduation Declaration via WebAdvisor. The Graduation Declaration should be completed at the time of registration for the semester prior to the completion of college coursework.

Iowa Central Community College grants certificates, diplomas, and associate degrees to certify the successful completion of programs of study.

Students may elect to graduate under requirements stated in the catalog in effect at the time of initial entry or in effect during the term of graduation.

Acceptance of transfer credit by Iowa Central toward a degree does not guarantee acceptance at other colleges. We urge students to consult with the college or university where they intend to transfer for more information.

Graduation Requirements:

An award will be granted to all students who:

1. Successfully complete hours required for program,
2. Complete an approved program,
3. Complete at least 15 semester hours from Iowa Central for an Associate's Degree and 9 semester hours for a diploma,
4. Maintain the required minimum grade-point average, and
5. Pay a graduation fee.

Honors

President's List/Dean's List

The following criteria are needed to be named to the President's List or the Dean's List for the Fall and Spring semesters: 1) Developmental courses will not be considered as part of the criteria (grade point average and credit load); 2) Grades are posted on the transcript within three full weeks of the end of the Fall and Spring terms and not recalculated after that point; 3) Must have completed 6 credit hours that provide quality points for the grade point average for that semester (e.g. pass credit does not provide quality points); 4) Grade point average for that semester for the President's List must be 4.0 (not cumulative), Grade point average for that semester for the Dean's List must be 3.5-3.99 (not cumulative). Recipient list is posted on the Iowa Central website and Iowa Central letters and pins may be picked up at each of the Centers (Student Records in Fort Dodge) for those who qualify.

Phi Theta Kappa (International Academic Fraternity)

Iowa Central has a chapter from the Phi Theta Kappa National Junior/ Community College Honor Society Fraternity. For membership into Phi Theta Kappa, the following criteria must be met: 1) Grade point must be 3.5 or higher (cumulative); 2) Must have accumulated 12 hours of college credit; 3) Developmental courses will not be considered as part of the criteria (grade point average and credit load); 4) There is a one-time membership fee.

Iowa Central Honor Society
Iowa Central Community College has an institutionally founded Honor Society. For membership into the Iowa Central Honor Society, the following criteria must be met: 1) Developmental courses will not be considered as part of the criteria (grade point average and credit load); 2) Grades must be posted on transcript within three full weeks of end of term; 3) Cumulative grade point average of 3.5 or higher after the fall semester of the current school year; 4) Have met the credit hour requirements to graduate during the current academic year. (Honor Society is for students who are graduating; not all students with a 3.5 grade point average qualify.) The induction ceremony for the Iowa Central Honor Society is held during the Spring Semester.

Long-Term Care

The following courses are offered on a need basis throughout Area V: Supervising in Health Care, Medication Manager, 75-Hour Nurse Aide T9905, Certified Medication Aide.

Non-Credit Courses

Iowa Central Community College offers a comprehensive variety of non-credit courses, seminars and workshops designed to meet the needs of our workforce. Programs are provided to help students prepare for a specific job, upgrade skills for an existing job, meet licensure certification and re-certification requirements, learn basic skills and increase general knowledge.

We also offer numerous general adult and community education courses that can be customized to meet the needs of small groups to best serve a particular area of interest. These courses may include hobby, craft and other recreational courses as well as a wide variety of general knowledge courses. Iowa Central Community College adds new community education courses frequently to meet the needs of the residents in the communities we serve.

Repeating Courses

A student may repeat any course more than once. Only the hours attempted and the grade point earned on the last repeat shall be used in calculating the cumulative grade point average. Withdrawing from a course that is being repeated and receiving a "W" does not erase the previous grades and does not constitute repeating the course. Courses from other colleges may be repeated with a like course at Iowa Central.

Certain courses in music, athletics, etc. may be repeated for cumulative credit. These are participatory courses such as Student Ambassadors, Student Senate, The Collegian, Concert Choir, etc.

Scholastic Dishonesty

Iowa Central Community College may initiate disciplinary proceedings against a student accused of scholastic dishonesty. Scholastic dishonesty includes, but is not limited to, cheating and plagiarizing. Plagiarism is presenting someone else's words as one's own, whether in writing or in speaking. Cheating and plagiarism, whether intentional or accidental, are serious offenses.

Scholastic dishonesty will not be tolerated in any course. Plagiarism and other forms of cheating are examples of such dishonesty and will result in serious consequences.

One is plagiarizing if one:

- Uses direct quotes without quotation marks and textual citation of the material.
- Paraphrases without crediting the source.
- Presents another's ideas as your own without citing the source.
- Submits material written by someone else as your own (this includes purchasing or borrowing a paper).
- Submits a paper or assignment for which one has received so much help that the writing is significantly different from one's own.

One is cheating if one:

- Copies someone else's exam or homework.
- Purposefully allows another student to copy your work or submit work that you have written as his/her own.
- Refers to a text, notes or other materials during an exam without authorization to do so.
- Submits a paper or assignment for which you have received so much help that the writing is significantly different from your own.
- Passes test answers to another student during or before a test Disciplinary

Action by the Instructor -- An instructor who suspects a student of scholastic dishonesty will inform the student of the allegation as soon as possible. It is up to the instructor to determine the disciplinary action to be taken, which could include giving the student a zero for the assignment, reducing the student's grade for the course, assigning an "F" for the course, or other action. The instructor will send a written report of the incident to the student, the appropriate division dean and the Vice-President of Instruction. If the instructor concludes that the incident merits additional disciplinary action (such as suspension or expulsion), he/she will send a written report of the case to the Vice-President of Instruction for recommended additional disciplinary action.

Semi-Truck Driving Program

ZST-206 - The PTDI Certified Course is 390 hours. Students will receive either a PTDI Certificate of Attainment or PTDI Seal of Attainment (placed on the Iowa Central certificate). A minimum of 51 Sessions (11 weeks) will be required. The program consists of classroom, pre- and post-trip inspections, cab familiarization, proper shifting techniques (RPM ranges), basic control of equipment, turning, backing, over the road trips. Classes are M-F, 7:00 am-3:30 pm, summer (evenings) session begins in April and operates M-F, 5:00 pm-9:00 pm. Most students average 2,000 miles of driving experience in the program.

ZST-207 - On the Job Training (OJT) consists of 210 hours (4 weeks) with the students new employer.

Requirements for Admission:

1. Minimum of 18 years of age or older.
2. Must possess a valid driver license.
3. Must possess a social security card (metal version not accepted).
4. Must have no more than 5 moving violations in the last 3 years.*
5. Must have no suspensions or serious moving violations in the last 12 months.
6. Must meet all applicable requirements of Federal Motor Carrier Safety Regulations including physical, mental and vision.
7. No preventable accidents in the last 12 months.
8. No alcohol related offenses in the last 3 years.*
9. No drug related offenses in the last 3 years.*
10. Must be able to verify the last 10 years of work history (if applicable).
11. Criminal history must be reviewed and approved prior to starting.

*Must be approved prior to starting.

Tuition is $5,500.00 plus $800 in fees (books/DOT physical & drug test/MVR/criminal background check & fuel). Housing is available for $500. Grants and financial aid are available for individuals meeting the financial aid requirements.

Course Description:
The classroom prepares the student for the concepts of operating a semi-tractor and trailer safely. The hands on operation applies the learned knowledge into practical application. This time will be spent on inspections (all types), basic control, serpentine driving (control of trailer), backing (all types), proper set ups, turns, shifting, coupling and uncoupling, along with driving (all types) rural, city and interstate conditions. Teaching a student to operate a truck safely at 80,000 pounds will include map reading, trip planning, logging, load securement and proper weight distribution.

Weather-Related Cancellations and Delays

The following guidelines will apply to cancellation or delay of College classes and activities in case of hazardous conditions involving weather:

Cancellation or Delay of Classes
The decision to cancel or delay classes will be made by the President or by his designee. If classes are delayed or canceled, the message will go to local radio/tv stations by approximately 6 a.m. A text message and email will also be sent to your cell phone if you are a TritonAlert subscriber. No announcement of cancellation or delayed classes via the media will mean that classes will be held as usual that day. At times, due to staff availability or changing weather conditions, there may be a delay in making announcements.

Delay of Classes
For one hour and one and one-half hour classes students and staff will report to the class with a start time at or after the announced start time. Department staff will define the start time for programs, such as those in the Applied Science and Technology Department, that are not one hour or one and one-half hour in length.

Early Dismissal of Classes
Should conditions develop during the day that would dictate that classes be dismissed early, the announcement of such dismissal will be circulated to the buildings by a member of the faculty or administrative staff. Students will not be used to circulate such information. The decision will be made by the President or by his designee.

Evening Classes
Any decision regarding evening classes (those starting after 5 p.m.) shall be made as soon as possible. Cancellation announcements will be given to local radio stations.

Cancellation or Delay of Activities and Non-Credit Classes
Department staff will determine any start time for activities or non-credit classes when the College is closed or opens late.

STUDENT LIFE

Academic Resource Center
Athletics
Billing
Bookstore
Career Services
Concerts and Lectures
Dental Hygiene Clinic
Housing
Intramurals
IowaWorks of North Central Iowa
Mental Health Counseling
Music
Organizations/Clubs
Publications
School Nurse
Student Activities
Student Ambassadors
Student Government
Theatre
TRIO: Student Support Services
Triton Closet
Triton Enrichment Center
Triton Food Pantry
Triton QuickCare Clinic
Vocational Rehabilitation

Academic Resource Center

The Academic Resource Center offers a range of services to Iowa Central students.

Academic Assistance

Regularly scheduled Academic Assistants help students study class materials, proofread papers, and complete assignments. Drop-in academic assistance is a free service available to all Iowa Central students. This is not only for students who are struggling or failing, but also for students who want to raise their grade from a "C" to a "B" or a "B" to an "A". Academic Assistants are located in a designated area in the Academic Resource Center and are available for a variety of subjects. A schedule of available services can be located in the Academic Resource Center or on the Iowa Central website.

Classroom Assistance provides students a designated hour of one-on-one time with an Academic Assistant. This is helpful for students who feel they need more individual and exclusive work with a specific Academic Assistant. The student is registered for Classroom Assistance like a regular class for credit and is graded as Pass/Fail. One hour of Classroom Assistance is the cost of one credit hour and students may register for up to 4 hours per week of Classroom Assistance for the price of 4 credit hours.

Online tutorial help is provided through Smarthinking.com. Students can access up to 7 hours of help each year with writing, math, science, business, and many other fields of study through this online service. Smarthinking.com is accessed through TritonPass and is available 24/7.

Disability/Accommodations Services

If you have a request for an accommodation based on the impact of a disability, it is Iowa Central's policy that you contact the Academic Assistance & Accommodations Coordinator to discuss your specific needs and to provide supporting information and documentation, so we may determine appropriate accommodations. The office for accommodations is located in the Academic Resource Center, and it can be reached by calling 515-574-1045. For online information about accommodations, please go to www.iowacentral.edu/accommodations.

Information Media/Online Library

A wide variety of media including books, DVDs, and periodicals is located in the Academic Resource Center. Computers, printers, headphones, and webcams are provided for student use. Photocopying and color printing are available for a nominal fee.

Online services are available both on and off campus: EBSCOhost is a periodical database that offers access to thousands of articles and books; NAXOS allows students to listen to the world's most comprehensive collection of classical and jazz music; Films on Demand provides instant access to outstanding documentaries and films; and Opposing Viewpoints Resource Center is an electronic version of the immensely popular Opposing Viewpoints series which provides a balanced look at hundreds of current issues.

The Academic Resource Center staff provides research assistance and helps with the use of computers.

Testing

Academic Resource Center staff administers make-up/accommodated tests for Iowa Central courses as well as standardized tests..

A few guidelines that students need to be aware of are listed below:

- All testers must present a photo ID that shows their first and last names.
- A valid photo ID is required for testing.
- All jewelry and personal items must be left in lockers during an exam.
- Pockets will be empty during testing.
- No hoods, coats, jackets, or hats are allowed in the testing room.
- All scratch paper and pencils will be provided by the Testing Center. Scantrons will need to be supplied by the student.
- No electronic books/tablets are allowed during open book exams. It is the student's responsibility to obtain a hard copy of the book for use in the Testing Center.
- No food or drinks, other than bottled water in a clear plastic container with all labels removed, will be allowed in the Testing Room. All water that is allowed must be kept on the floor.
- All testing must be completed in one sitting and turned in before closing time.
- Leaving the testing station/room after the exam has been distributed is not permitted unless prior approval has been granted.
- Exam accommodations need to be arranged with the Academic Assistance and Accommodations Coordinator (515.574.1045) or with the testing organization.
- Accommodated tests should be taken in the Testing Center during scheduled class time. A make-up time can be arranged with the instructor if classes are scheduled back-to-back.
- Students with accommodations for a reader and/or private testing room must schedule an appointment at least 2 days in advance with the appropriate Testing Center (Fort Dodge, Storm Lake, or Webster City).
- Accommodated exams are the only exams given in the Testing Center during finals week.
- No children are allowed in the Testing Center.
- Academic dishonesty will not be tolerated.
- Iowa Central is not responsible for lost, stolen, or damaged items.
- Refusal to comply with the above guidelines will result in denial of Testing Center services.

Athletics

Iowa Central has a balanced intercollegiate athletic program with competition in men's basketball, baseball, bowling, cross country, football, golf, rodeo, rugby, soccer, sports shooting, swimming, tennis, track & field, and wrestling. Women compete in basketball, bowling, cross country, golf, rodeo, soccer, softball, sports shooting, swimming, tennis, track & field, and volleyball. These sports can lead to championship play in the Iowa Area Community College Athletic Association and the National Junior College Athletic Association.

Also, students can participate on the Cheer Team, Dance Line, and Athletic Marching Band. These are not recognized by the NJCAA as intercollegiate sports.

Billing

The College's Business Office is located in the Student Support Services Building. This is the office responsible for maintaining the financial records for all students. Students who enroll in credit and/or non-credit courses will have their tuition and fee charges appear on their student account. Students can view their student account activity using WebAdvisor. The Business Office sends out periodic billing statements, answers question regarding charges, and receives payments on accounts.

Payments for tuition and fees are due in full prior to the start of classes, although a deferred payment plan is available for eligible credit courses in the fall and spring semesters.

Student accounts not paid in full will be referred to the College's collection agency. Iowa Central also participates in the State of Iowa Offset Program operated by the Iowa Department of Administrative Services to collect overdue account balances.

Bookstore

The main objective of the bookstore is to help students fill their book and supply needs as promptly as possible. The bookstore is also available to the general public with help in locating books and supplies for their personal and business needs. Along with textbooks and school supplies, items such as clothing, greeting cards, personal supplies, stamps and mail service are available.

For added convenience to students, many textbooks and apparel items are available for purchase through the Online Bookstore.

Career Services

Iowa Central Community College Career Services utilizes Career Services Manager (CSM) which is a comprehensive web-based career services management solutions for students and alumni. CSM allows students to build a dynamic resume and cover letter, research occupational information, and search for jobs.

Other services available include: resume critiquing, cover letter and thank-you letter assistance, career/job fairs, job searching resources, on-campus interviewing, labor market information, occupational information, internship opportunities and job opening emails

Concerts and Lectures

Iowa Central students have the opportunity to attend a wide variety of professional entertainment on campus. Some performances are held during noon hours in the Student Resource Center while others are available during the evening and on weekends. Plays, concerts, and lectures held on campus as well as those sponsored by cooperating organizations are generally available with the student ID or a special student price. Students also have wonderful opportunities to participate in many of these performances through the performing arts group on campus.

Dental Hygiene Clinic

All Iowa Central students who present their identification card may receive dental hygiene services for free including a dental examination, X-rays, teeth cleaning and athletic mouth guards. For more information regarding services, students can contact the Dental Hygiene Clinic at 574-1327 or online at the Iowa Central Dental Hygiene web page.

Housing/Apartments

Fully furnished apartment living is provided with amenities including an adequate-sized kitchen with a range and refrigerator, living room, good-sized bath, and two bedrooms, all in the midst of campus life. They are spacious and well built, with a level of quality not typically found in many apartment developments. They include cable, wireless networking and the convenience of a safe campus environment.

Also on campus is the Woodruff Complex which offers furnished traditional style dorms, studio style apartments, and more apartment style living.

Our student housing staff includes the Director of Housing, four Associates of Housing, and Resident Assistants in each building. Security cameras are also installed in the parking lots.

An all-you-can-eat meal plan is also provided. It is offered in a 19-meals per week plan. Membership to the Iowa Central Rec Center is also included.

Unmarried students under 21 years of age who do not commute daily to and from their parent's or legal guardian's home are not required to live in college-approved housing (but are encouraged to do so).

Contracts for the Iowa Central housing facilities may be requested online at www.iowacentral.edu/housing/index.asp or by contacting the Iowa Central Community College Housing Office at 515-574-1086, One Triton Circle, Fort Dodge, IA 50501.

Intramurals

A well-rounded intramural program is provided for all college students. Competition takes place in such sports as football, volleyball, softball, and basketball. Other activities are organized from the student body on a voluntary sign-up basis.

IowaWorks of North Central Iowa

The Northcentral Iowa WORKS Career One-Stop, a proud partner of the American Job Center Network, is located on the Iowa Central Community College campus. IowaWORKS is your one-stop-shop for employment assistance, providing the following services: Coaching and assistance with writing a resume, access to career and skills assessments, membership in the IowaJobs database, no-cost career readiness workshops, electronic job application assistance, and access to tuition assistance and personal supports for education and training.

Career Pathfinders

We are a team of Career Navigators located in the Iowa WORKS one-stop center dedicated to helping you discover your own unique career pathway, and connecting you with the resources you need to achieve your career goals. Understanding that every person has a unique set of skills, experience, values, challenges, and goals, we help develop a career pathway that is customized just for you which will include a combination of career exploration activities and career education training.

Let our Career Navigators assist you with the following services: career exploration & counseling, interest & skills assessment, training program placement, one-to-one advising, tuition assistance, transportation assistance, childcare assistance, soft skills development, job placement assistance, apprenticeships, on-the-job training, and work experience and job shadowing.

GAP Tuition Assistance

Want new skills but worried about the cost? Need-based funding is available for shortterm certificate programs for jobs that are hiring, including COL and CNA. Don't assume you don't qualify. We will sit down with you to determine if you meet the income guidelines. Tuition assistance covers full or partial tuition (price charged by the school), training and testing fees, required books and equipment. Funding is only available for one certificate program.

For more information about all of the services provided at IowaWORKS please call (515) 576-3131, or come visit us at the IowaWORKS One-Stop at Three Triton Circle, Fort Dodge, IA 50501.

Mental Health Counselor

Free student counseling is available to all current students. Office hours are Monday – Thursday from 8:00am – 5:00pm and Friday from 8:00am – 4:30pm. Services include short-term counseling, consultations, and referrals. Students are encouraged to fill out an appointment request form through TritonPass under the "Student Forms" section to set up an appointment.

Music

Iowa Central has long been known for its Music Department. Our ensembles have performed throughout the area. Both vocal and instrumental opportunities are available through the Concert Choir, Encore Singers, Jazz Band, and Concert Band. Fall performance opportunities, Spotlight on the Stars, the Holiday Concert, the annual musical production, and a spring Showcase concert are scheduled in Decker Auditorium on campus. Tours each spring, along with many guest appearances throughout the state keep music students active.

Organizations/Clubs

Iowa Central Community College sponsors a wide variety of student clubs and organizations dealing with certain areas of study, as well as social opportunities. New clubs or organizations must go through the Student Activity Office for approval to function on campus. Membership must be made up of Iowa Central students with a full-time staff member as an advisor. Organizations and clubs that are sanctioned are allowed representation in the student government and can incorporate "Iowa Central" into its name. Organizations that do not qualify to be sanctioned may become recognized, allowing members to meet on campus. The College does not have fraternities and sororities, and it is against policies to form one on or off campus.

Publications

The college's national award-winning student newspaper, called the *Iowa Central Collegian*, is published twice per semester, and the online edition is updated every two weeks. Students interested in writing, advertising, layout and photography are encouraged to join the staff, especially those who are familiar with or interested in learning the computer program Adobe InDesign.

School Nurse

Iowa Central has a Registered Nurse on duty at the Fort Dodge Center Monday – Friday from 7:30am – 4:30pm. Services are confidential and free to Iowa Central students. Services include illness and injury assessment, over the counter medications, referrals to local agencies, medication management assistance, First Aid, Health Education and assistance with chronic medical conditions. No appointment needed. Walk ins welcome. This is also where immunization records are kept.

Student Activities

Student activities at Iowa Central meet the wide variety of interests of students, from the arts and athletics to clubs and cookouts. Throughout the year, professional entertainers are scheduled in Decker Auditorium and the Student Resource Center. Bingo nights, athletic events, intramurals, dances, Iowa Central Performing Arts Department performances, plus cookouts, coffee houses, and comedians are among the many planned events that take place during the year. The college student ID card allows students free admission to most campus events and can be used at any center of Iowa Central to take advantage of the numerous activities.

Student Ambassadors

The Enrollment Management and Student Development Office accepts applications for ambassadors in the Student Ambassador Program. Ambassadors are required to devote 48 hours per semester giving College tours, phone calling and acting as host/hostess for activities sponsored by the President's Office and Enrollment Management and Student Development. One semester hour of college elective credit per semester is available for participating students. A maximum of four semester hours may be earned.

Student Government

Iowa Central's Student Government consists of a governing body known as the Student Senate of Iowa Central Community College. The purpose of the Student Senate is to insure that all students enrolled at Iowa Central have the opportunity to achieve the best education. The main function of the Student Senate is to discuss campus issues and make recommendations to the College Administration regarding college policies, regulations, practices, and procedures. Active involvement in the planning and implementation of student activities, civic events, and community service projects sponsored by the Student Senate are a major focus of the organization. Meetings of the Student Senate begin on the first Tuesday of every school year, and all students are encouraged to attend and to get involved by becoming a member.

Theatre

The college provides opportunities for students to participate in theatre and musical productions each year. Auditions, practices, and performances are held at the Fort Dodge Center. All Iowa Central students are encouraged to participate regardless of experience. Those not interested in performing on-stage might consider helping with other areas such as stage lighting, makeup, costume design, and set construction. The fall play is in October, and the spring musical is in February or March.

TRIO: Student Support Services

Student Support Services, a federal grant TRIO program funded by the U.S. Department of Education, is designed to help students achieve academic and personal success in college. Twenty six colleges and universities in Iowa host SSS programs, and these programs serve almost 5,000 college students. SSS at Iowa Central Community College offers a variety of services to enhance students' potential to successfully complete their educational program. Services offered include peer tutoring, academic advising, transfer assistance, information workshops, financial aid and grant aid assistance, cultural and social activities, a study and computer area, proofreading, career advising, and job shadowing.

Triton Closet

The Triton Closet contains coats and winter weather necessities like gloves, hats, scarfs, ear warmers, socks, blankets, and a few boots. Hygiene supplies, school supplies, and various household items are also available. These items are free to all Iowa Central students in need. Contact the school nurse or mental health counselor for assistance with this program. Donations accepted.

Triton Enrichment Center

Triton Enrichment is available, without charge, to currently registered students. Office hours are Monday-Thursday from 8:00 a.m. – 5:00 p.m. and Friday from 8:00 a.m.-4:30 p.m. Triton Enrichment is located in Student Support Services in room 124. These services help connect students to all resources on campus. In addition, this services offer mentoring, success coaching, goal setting, getting involved, computer use, a relaxing environment, and much more.

Triton Food Pantry

The food pantry is available to all Iowa Central students free of charge and contains non-perishable food items. Various types of bread and pastries are available each Friday. The school nurse and mental health counselor coordinate this program. Donations accepted.

Triton QuickCare Clinic

The Triton Quick Care Clinic is open on Tuesdays from 9am – 2pm. A Nurse Practitioner is available to all students for evaluation and treatment of illness or injury, testing for STD, birth control and other women's health issues. This includes prescriptions if needed. Physicals are also available. Insurance will be billed for these services or a small fee will be charged for those with no insurance. Call ext. 1047 to make an appointment. Walk ins welcome.

Vocational Rehabilitation

Vocational rehabilitation services are available to individuals who have physical or mental disabilities. The Iowa Division of Vocational Rehabilitation Services and Iowa Central Community College maintain a cooperative agreement that enables rehabilitation counselors to serve Iowa Central Community College students on campus. Rehabilitation services for eligible persons include medical and psychological assessment, vocational assessment, counseling and guidance, physical and/or mental restoration devices, adaptive equipment, job training, occupational tools, and job placement.

TRANSFER INFORMATION

College Transfer Majors

College and University Transfer Information

Transfer Agreements

Associate of Arts Degree Articulation Agreement

Transfer of Vocational-Technical Credits

Buena Vista University - Fort Dodge Center

College Transfer Majors

The two-year Associate in Arts Degree from the Arts and Sciences Division of Iowa Central will enable a student to enter four-year colleges and universities as a junior prepared to complete work toward a bachelor's degree in any number of major fields of study. Here is a partial list of majors students could select at a 4-year institution after their freshman and sophomore years at Iowa Central.

Accounting
Advertising
Aerospace Engineering
Agriculture Business
Agriculture Education
Agronomy
Animal Science
Anthropology
Apparel Design
Architecture
Art & Design
Athletic Trainer
Aviation
Biochemistry
Biology
Botany
Broadcasting
Business Administration
Chemistry
Child Care
Child & Family Services
Chiropractic
Civil Engineering
Coaching
Communication
Computer Science
Consumer Food Science
Criminology
Dairy Science
Dental Hygiene
Dentistry
Dietetics - Food & Nutrition
Early Childhood Education
Earth Science
Ecology
Economics
Electrical Engineering
Elementary Education
English
Entomology
Environmental Studies & Planning
Family & Consumer Sciences Ed
Family Resource Management
Farm Operations
Fashion Merchandising
Finance
Fisheries
Food Science
Forestry
French
Genetics
Geography
German
Government
History
Horticulture
Housing
Hospital Management
Hotel & Restaurant Management
Industrial Engineering
Interior Design
International Business
International Relations
Journalism
Law
Leisure Studies
Liberal Arts
Library Science
Literature
Management
Marketing
Mass Communication
Mathematics
Mechanical Engineering
Medical Technology
Medicine
Meteorology
Microbiology
Mortuary Science
Music
Nuclear Engineering
Nuclear Medical Technology
Nursing
Nutritional Science
Occupational Therapy
Optometry
Pharmacy
Philosophy
Physician Assistant
Physics
Physical Education
Physical Therapy
Physician
Plant Pathology
Podiatry
Political Science
Psychology
Public Administration
Public Relations
Radiology
Radio/TV Journalism
Recreation
Religion
Sociology
Social Science
Social Work
Soil Management
Spanish
Special Education
Speech Education
Speech Communication
Statistics
Theatre
Transportation & Logistics
Veterinary Medicine
Virology
Wildlife Biology
Zoology

College and University Transfer Information

The following courses of study are examples of how courses taken at Iowa Central meet requirements for various majors at selected four-year institutions in Iowa. The outlines are intended as guidelines for students planning to enter the profession listed. The list is not all inclusive, and students should consult with their advisors concerning requirements for their individual bachelor degree programs.

The courses of study have been compiled with the assistance of each senior college. Due to possible changes after printing, **students must assume the responsibility for their own course of study.** Students are advised to correspond with their advisors, the admissions office and the department at the college where they plan to transfer.

Transfer Agreements

Potential transfer students should be aware that the Iowa community colleges and Iowa's Public Universities have jointly developed a number of agreements to facilitate student transfer. Some of these may be of particular benefit to students. Among these agreements are the following:

Iowa Community Colleges/ Iowa's Public Universities Associate of Arts (AA) Degree Articulation Agreement

Students who complete an AA degree at an Iowa community college and who subsequently enroll at one of Iowa's Public Universities are considered to have met freshman and sophomore level general education requirements for certain Bachelor's degrees under the terms specified in the agreement.

Transfer of Vocational-Technical Credits

Iowa's Public Universities accept up to 16 semester credit hours of vocational-technical courses for transfer towards a Bachelor's degree from the community colleges provided those credits apply to the AA degree at the host community college and the other Iowa community colleges. You do not have to obtain an AA degree, however, to have this credit awarded.

There are opportunities for completing a Bachelor of Applied Studies at a University after completing your Associate of Applied Science at Iowa Central. See your advisor for more information.

Buena Vista University - Fort Dodge Center

The Fort Dodge Center of Buena Vista University opened in February 1975. This unique partnership of a public and a private institution serves the region by offering a Bachelor of Arts degree program in Fort Dodge. Students complete the first two years as Iowa Central Community College students and the junior and senior year as Buena Vista University students.

The Center appeals particularly to employed persons who cannot relocate to complete their four-year degrees. In addition to the large evening program, daytime classes are offered in several fields. Students can complete their degrees while maintaining their home and job responsibilities.

Evening courses meet twice a week for eight weeks. Five terms make up one school year. The normal course load is two courses per term, thus 30 hours are completed each year.

Admission
The Buena Vista Fort Dodge Center is classified as a junior-/senior-level college. Persons who have completed an Associate of Arts degree or two years of college work (60 semester hours) with an acceptable grade point average qualify for admission.

Graduation Requirements
The Center has an open admissions policy, but an overall cumulative grade point average of 2.0 is necessary for graduation. For those pursuing teacher certification, a grade point average of 2.5 for the total program and in each major and minor field is required.

Academic Programs

Buena Vista offers the following programs at the Fort Dodge Center:

- Accounting
- Bachelor of Applied Studies
- Business Administration
- Business Education
- Criminology & Criminal Justice
- Distributive Major
- Elementary Education
- English
- English with Teaching Licensure (5-12)
- English with Teaching Licensure (Grades K-8)
- Health Services Leadership (Distributive)
- History
- Human Services (Distributive)
- Management
- Organizational Leadership
- Psychology
- Social Science
- Sociology
- Technology Management (Distributive)

Endorsements & Certification

- Middle School Endorsement (5-8)
- Post-Baccaulaureate Certification Program
- Pre-Kindergarten/Kindergarten
- Secondary School Certification
- Special Education Endorsement

A significant aspect of the Fort Dodge Center is the personalized academic counseling and course programming available to students. Students planning to complete full four-year programs at Iowa Central and Buena Vista/Fort Dodge are encouraged to plan their programs with assistance from the advisors at both institutions.

Several types of financial aid are available to Buena Vista/Fort Dodge students. Persons wishing information about registration and transfer procedures, degree requirements, or financial aid should contact the Buena Vista/Fort Dodge Center office on the main floor of the Iowa Central Community College Liberal Arts Building. Telephone: (515) 576-4881 or 1-800-798-4881.

PROGRAMS OF STUDY

Accounting Associate Program

Diploma/Associate of Arts (AA)/Associate of Professional Studies (APS)

The accounting profession is seeking highly-motivated, dedicated and well-educated people. The field is especially attractive and fulfilling to those who have good problem-solving skills and enjoy working with people.

The Accounting Associate Program offers students the opportunity to enter the work force after completion and/or to further their education. Students progress through the sequence of courses their first year to obtain an Accounting Assistant Diploma. Upon successful completion of a second year of study, students will also earn an Associate of Professional Studies degree in the Accounting Associate Program. A third option also exists for those wishing to complete the Associate of Arts transfer degree.

Courses in the program are offered utilizing hands-on, active learning approaches. The two-year program culminates with the Practicum, on-the-job training in an accounting-related position with an area employer.

Program of Study - Accounting Assistant (Diploma)

First Semester		Sem. Hrs.
ACC-111	Intro to Accounting	
	or	
ACC-142	Financial Accounting*	3
CSC-110+	Intro to Computers	3
ENG-105+	Composition I	3
MAT-157+	Statistics*	3
ECN-120+	Principles of Macroeconomics	3
ADM-131	Office Calculators	1
SDV-108+	The College Experience	1
	Total Hours	**17**
Second Semester		
ACC-311	Computer Accounting	3
ACC-142	Financial Accounting	
	or	
ACC-146	Managerial Accounting*	3
ACC-364	Excel for Accounting	3
ENG-106+	Composition II	3
ACC-108	Payroll Applications	3
	Total Hours	**15**
	Diploma Total Hours	**32**
Summer Semester		
+	Humanities Elective	3

Program of Study - Accounting Associate (APS Degree)

Third Semester		
ACC-211	Intermediate Accounting I	3
ACC-221	Cost Accounting	3
SPC-112+	Public Speaking	3
+	Social Science Elective	3
+	Science Elective	3
	Total Hours	**15**
Fourth Semester		
ACC-932	Internship	3
ACC-701	Certified Bookkeeper Review	3
ACC-266	Tax Accounting	3
+	General Education Elective	3
+	General Education Elective	3
	Total Hours	**15**
	APS Degree Total Hours	**65**

Suggested Program of Study - Accounting Transfer (AA Degree)

First Semester		Sem. Hrs.
ACC-142	Financial Accounting	3
CSC-110	Intro to Computers	3
ENG-105	Composition 1	3
MAT-157	Statistics	4
ECN-120	Principles of Macroeconomics	3
ADM-131	Office Calculators	1
SDV-108	The College Experience	1
	Total Hours	**18**
Second Semester		
ACC-311	Computer Accounting	3
ACC-146	Managerial Accounting	3
ACC-364	Excel for Accounting	3
ENG-106	Composition II	3
ACC-108	Payroll Applications	3
	Total Hours	**15**
Third Semester		
MAT-158	Statisitics II	3
ECN-130	Principles of Microeconomics	3
	Social Science Elective	3
	Science Elective	3
	Humanities Elective	3
	Total Hours	**15**
Fourth Semester		
SPC-112	Public Speaking	3
	Humanities Elective	3
	Humanities Elective	3
	Distributive Requirements	5
	Total Hours	**14**
	AA Degree Total Hours	**62**

Iowa Central also offer a "Numbers at Night" program designed for working adults. All accounting courses are offered in a face-to-face classroom via night delivery on Monday and Thursday evenings. The remainder of the courses are available via FlexNet, online, or night delivery.

Software training will include Microsoft Word, Microsoft Access, Microsoft PowerPoint, Microsoft Excel, Taxcut, Quickbooks Pro, Peachtree, and Payroll Integrated Software.

**Required for A.P.S. degree*

+Course satisfies general education requirement.

Graduation Requirement: Must pass all core program courses with the prefix ACC with a "C" or better.

Students taking the A.A. Accounting Transfer option will also receive the Accounting Assistant Diploma with the suggested sequence of courses. Course selection may differ depends upon the transfer institution requirements.

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 32 (Diploma), 65 (APS)
Campus: Fort Dodge
Department: Business
CIP#: 52.03010200

Administrative Specialist

Certificate/Diploma/Associate of Applied Science (AAS)

Today's businesses have sophisticated equipment such as computers, copiers, scanners, telephones, and video display projectors to name a few. Businesses everywhere need employees who can operate these machines efficiently and productively. The Administrative Specialist program at Iowa Central provides students the opportunity to learn and to improve the technical and communication skills that today's business offices demand.

Students learn to refine their spoken, written, and listening communication competencies. They have ample opportunity to work cooperatively and in team settings. In addition, they are encouraged to develop the work attitudes employers value most—dependability, initiative, follow-through, cooperation, and human relations.

In the technical skills area, students strive to increase their speed and accuracy at the keyboard and on the calculating machine, to apply business math concepts, and to learn general accounting principles. Students also develop the essential computer applications of word processing, spreadsheet, database management, and Web publishing. They are well prepared for Microsoft certification and placement in a business environment.

Program of Study - Office Assistant (Diploma)

First Semester		Sem. Hrs.
BUS-161+	Human Relations	3
ADM-112	Keyboarding**	3
BUS-102	Intro to Business	3
CSC-110+	Intro to Computers*	3
ADM-260	Personal Development	1
ENG-105+	Composition I	3
	Total Hours	**16**

Second Semester		
ADM-148	Transcription	2
ADM-162	Office Procedures	3
ADM-116	Keyboarding II	3
ACC-111	Introduction to Accounting	3
BUS-121+	Business Communications	3
ADM-131	Office Calculators	1
ADM-258	Professional Development	1
	Total Hours	**16**
	Diploma Total Hours	**32**

*OR (BCA-122, BCA-146, BCA-164, and BCA-174)

**Student must complete a 3-minute timed writing with a minimum speed of 35 words per minute with three (3) or fewer errors. If this minimum is not met, the student will be required to enroll in ADM-105 Intro to Keyboarding as a pre-requisite.

Summer Semester	(optional)	
ADM-941	Practicum	2
	Total Hours	**2**

Summer semester is optional for Office Assistant Diploma. The practicum is also applicable for the A.A.S Degree.

Program of Study - Administrative Specialist (AAS Degree)

Third Semester		
BUS-180	Business Ethics	3
ACC-364	Excel for Accounting.	3
CIS-256	Dreamweaver I or	
BCA-251	Publisher or	
GRA-176	Layout Design I	3
ADM-108	Keyboarding Skill Development	1
ADM-180	Administrative Management	3
	Program Elective****	3
	Total Hours	**16**

Fourth Semester		
BUS-112+	Business Mathematics***	3
ADM-941	Practicum	2
ADM-297	Certification Preparation	1
ADM-146	Integrated Applications	3
BCA-252	Access for Business	3
	Program Elective****	3
	Total Hours	**15**
	AAS Degree Total Hours	**63**

Program of Study - Office Support (Certificate)

First Semester		Sem. Hrs.
ADM-131	Office Calculators	1
BCA-122	Basic Word Processing	1
BCA-146	Basic Spreadsheets	1
BCA-164	Basic Databases	1
BCA-174	Basic Presentation Software	1
BCA-121+	Business Communications	3
	Total Hours	**8**

Second Semester		
ADM-162	Office Procedures	3
ADM-112	Keyboarding**	3
ADM-260	Personal Development	1
BCA-251	Publisher	3
BUS-161+	Human Relations	3
	Total Hours	**13**
	Certificate Total Hours	**21**

The following program requirements must be met:

Minimum GPA of 2.0 cumulative
Minimum "C" grade required in:
ADM-112 Keyboarding
ADM-116 Keyboarding II
ADM-146 Integrated Applications
ADM-941 Practicum

****Course may be substituted with a course from the same category as indicated in the approved general education course list.*

*****See Program Coordinator for approved list and description of courses to fulfill electives.*

+Course satisfies general education requirement.

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 21 (Certificate), 32 (Diploma), 63 (AAS)
Campus: Fort Dodge
Department: Business
CIP#: 52.04010200

Agriculture

Associate of Arts (AA)

Iowa Central offers a unique educational program in Agriculture. Typically, the first two years of the program are taken at Iowa Central and the final two years are completed at a four-year University. Courses will be selected to align with specific programs at four-year institutions.

Suggested Program of Study:

English/Speech Communication - 9 cr. required		Sem. Hrs.
ENG-105	Composition I	3
ENG-106	Composition II	3
SPC-112	Public Speaking	3
Math and Science - 8 cr. required		
MAT-140	Finite Math	3
MAT-157	Statistics	4
	or	
MAT-210	Calculus I	4
	or	
MAT-127	College Algebra & Trigonometry	5
BIO-102	Introductory Biology	3
BIO-103	Introductory Biology Lab	1
	or	
BIO-112	General Biology I	4
CHM-110	Introduction to Chemistry	3
CHM-111	Introduction to Chemistry Lab	1
	or	
CHM-165	General Chemistry I	4
Social Science - 9 cr. required		
	Social Science Elective	3
	Social Science Elective	3
	Social Science Elective	3
Humanities - 9 cr. required		
	Humanities Elective	3
	Humanities Elective	3
	Humanities Elective	3
Distributed Requirements - 5 cr. required		
	5 additional hours required from above categories	5
Computer Literacy - 3 cr. required		
CSC-110	Introduction to Computers	3
College Experience		
SDV-108	College Experience	1
Electives - 16 cr. required		
AGA-852	Principles of Crop Production	3
AGS-113	Survey of the Animal Industry	3
AGB-235	Introduction to Agriculture Markets	3
AGA-390	Introduction to Renewable Resources	3
AGB-330	Farm Business Management	3
AGS-401	Swine Production	3
AGS-553	Beef Production	3
AGB-133	Introduction to Ag Business	3
AGB-336	Agricultural Selling	3
AGE-219	Equine Science	3
AGA-154	Fundamentals of Soil Science	3
AGA-155	Fundamentals of Soil Science Lab	1
AGA-380	Integrated Pest Management	4
AGP-336	Precision Agriculture	3
AGC-129	Sustainable Agriculture	3
AGC-940	On-the-Job Training	3
AGA-271	Advanced Corn and Soybean Production	3
ACC-142	Financial Accounting	3
ACC-146	Managerial Accounting	3
AGP-330	Advanced GPS	3
AGS-308	Livestock Management	3

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 60
Campus: Fort Dodge
Department: Industrial Technology
CIP#: 24.01010200

Agriculture Technology

Associate of Applied Science (AAS)

In the dynamic realm of today's agriculture, this program is designed to prepare students for the production, retail, and service aspects of the agriculture industry. Students will gain employable skills through such courses as animal science, crop production, farm business management, and field studies. In addition, students will receive practical experience in some of the largest agricultural businesses in the Midwest. The college farm also provides the resources for students to apply many farm management skills. Upon the completion of this Associate of Applied Sciences program, students may seek full-time employment in agriculture or may choose to continue their education.

Program of Study

First Semester		Sem. Hrs.
AGS-113	Survey of the Animal Industry	3
AGC-201+	American Agricultural History*	3
AGA-852	Principles of Crop Production	3
ACC-111	Introduction to Accounting	3
	Ag Tech Elective**	3
	Total Hours	**15**
Second Semester		
AGB-206	Farm Operations & Management I	3
AGC-318	Field Studies/Career Opportunities	3
AGB-235+	Introduction to Agriculture Markets~	3
	Ag Tech Electives**	6
	Total Hours	**15**
Summer Session		
AGB-934	Practicum (Required)	3
	Ag Tech Fast Track Courses:	3
	Must complete 3 credit hours from the following electives: AGM-101 Ag Diesel Tractor Equipment Maintenance (1), AUT-121 Small Engines (1), CON-100 Basic Carpentry (1), ELE-162 Basic Wiring (1), CON-130 Concrete Theory (1)	
	Total Hours	**6**
Third Semester		
AGA-154	Fundamentals of Soil Science	3
AGA-155	Fundamentals of Soil Science Lab	1
AGB-207	Farm Operations and Management II	3
	Ag Tech Electives**	6
+	Communications Elective	3
	Total Hours	**16**
Fourth Semester		
AGA-380	Integrated Pest Management	4
AGB-330	Farm Business Management	3
	Ag Tech Electives**	6
BUS-112+	Business Mathematics or Math Elective	3
	Total Hours	**16**
	AAS Degree Total Hours	**68**

**Course may be substituted with a course from the same category as indicated in the approved general education course list.*

***Ag Tech electives must be chosen from the list below.*

~Course may be substituted with a course from the approved general education course list.

Fall Electives		
AGS-308	Livestock Management	3
AGP-336	Precision Agriculture	3
AGC-940	On The Job Training	3
AGB-133	Introduction to Ag Business	3
AGS-401	Swine Production#	3
AGB-336	Agricultural Selling	3
IND-127	Shop Operations	1
WEL-122	Beginning Welding	2
BUS-113	Workplace Readiness	1.5
Spring Electives		
AGC-129	Sustainable Agriculture	3
AGS-553	Beef Production#	3
AGE-219	Equine Science	3
AGA-271	Advanced Corn and Soybean Production#	3
AGA-390	Introduction to Renewable Resources	3
AGC-940	On The Job Training	3
AGP-330	Advanced GPS	3

#Third or Fourth semester classes only.

+Course satisfies general education requirement.

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 68
Campus: Fort Dodge
Department: Industrial Technology
CIP#: 01.01020200

Art

Associate of Arts (AA)

Artists are finding an increasingly expanding range of career options as new media and the need for visual literacy grows. Visual communication skills are valued in a wide variety of settings, from traditional art studios to video game design. Students will hone technical abilities and discover new media as they develop a strong foundation in visual observation and the use of formal aesthetic principles. The importance of visual literacy, critical thinking, collaboration, and cultural context is emphasized.

Suggested Program of Study:

First Semester		Sem. Hrs.
ART-101	Art Appreciation	3
PSY-111	Introduction to Psychology	3
ENG-105	Composition I	3
SDV-108	The College Experience	1
CSC-110	Introduction to Computers	3
	Studio Course	3
	Total Hours	**16**
Second Semester		
ENG-106	Composition II	3
POL-111	American National Government	3
MAT-111	Math for Liberal Arts	4
ART-133	Drawing	3
	Studio Course	3
	Total Hours	**16**
Third Semester		
ART-203	Art History I	3
SPC-112	Public Speaking	3
BIO-102	Introductory Biology	3
BIO-103	Introductory Biology Lab	1
	Studio Course	3
	Total Hours	**13**
Fourth Semester		
ART-204	Art History II	3
REL-105	Introduction to Religion	3
SOC-110	Introduction to Sociology	3
	Studio Course	3
	Studio Course	3
	Total Hours	**15**

It is strongly recommended that students who intend to transfer into art and design majors take additional studio work, selecting from the following classes:

Painting & Painting II
Graphic Design & Graphic Design II
Ceramics & Ceramics II
Photography I & II
Sculpture
Drawing II
Typography

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 60
Campus: Fort Dodge, Storm Lake, and Webster City
Department: Humanities
CIP#: 24.01010200

Athletic Training

Associate of Arts (AA)

The Athletic Training degree at Iowa Central Community College will allow students to gain valuable experience in the field of Athletic Training while still obtaining the Associate of Arts degree for transfer to the 4-year institution of their choice. The curriculum is rich in Physical Education and Science to give the student a strong understanding of the human body, anatomy, and physiology as well as experience working with athletes in the college setting.

Athletic Training students will have the opportunity to work with men's and women's athletic teams that compete at the National Junior College Athletic Association (NJCAA) Division II level. Athletic teams include Baseball, Men's and Women's Basketball, Softball, Men's and Women's Rodeo, Men's and Women's Golf, Men's and Women's Soccer, Wrestling, Volleyball, Football, Men's and Women's Track and Field, Men's and Women's Cross Country, and Men's and Women's Swimming.

Within the program, the students will embark on field experience on the playing and practice fields as well as a work clinical where the student will gain experience as an athletic trainer in the workplace. During these clinical experiences, the students will be assigned to an approved clinical instructor (ACI) at various settings both on and off campus. Through these assignments, the students are exposed to the various aspects of organization and administration of the athletic training program while utilizing the athletic training staff as a resource. This wide range of experience enhances the total development of each athletic training student's skills.

Suggested Program of Study:

First Semester		Sem. Hrs.
ENG-105	Composition I	3
PEH-141	First Aid	2
PSY-111	Introduction to Psychology	3
BIO-168	Human Anatomy & Physiology I	4
PET-105	Basic Athletic Training	3
SDV-108	The College Experience	1
	Total Hours	**16**
Second Semester		
ENG-106	Composition II	3
CSC-110	Intro to Computers	3
BIO-151	Nutrition	3
BIO-173	Human Anatomy & Physiology II	4
	Social Science Elective	3
	Total Hours	**16**
Third Semester		
SPC-112	Public Speaking	3
BIO-102	Introductory Biology	3
BIO-103	Introductory Biology Lab	1
MAT-157	Statistics	4
	Humanities Elective	3
	Humanities Elective	3
	Total Hours	**17**
Fourth Semester		
CHM-165	General Chemistry	4
PEH-185	Contemporary Health Issues	3
	Social Science Elective	3
	Humanities Elective	3
	General Education Course*	3
	Total Hours	**16**

**Must be selected from areas I-IV section of AA degree sheet.*

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 60
Campus: Fort Dodge
Department: Business
CIP#: 24.01010200

Automotive Collision Technology

Diploma/Associate of Applied Science (AAS)

The Automotive Collision Technology Program will train students to work in all levels of the Auto-Body repair and restoration industry. Students will learn the necessary electrical systems, suspension and steering systems, panel repair and replacement, paints and refinishing and repair estimating. Students may graduate with a diploma in Automotive Collision after successful completion of first and second semesters. Students can continue to third and fourth semesters to complete an Associate in Applied Science (A.A.S) Degree.

Program of Study: Diploma

First Semester		**Sem. Hrs.**
MAT-743+	Technical Math*	3
CRR-303	Introduction to Auto Body Repair	3
CRR-337	Beginning Metal and Filler Work	3
CRR-110	Auto Body Welding	3
CRR-204	Repair of Plastics and Adhesives	3
CRR-309	Auto Body Prep & Mask	3
	Total Hours	**18**
Second Semester		
CRR-850	Computerized Paint Mixing	3
CRR-807	Auto Body Refinishing	3
CRR-401	Panel-Door Skin Replacement	3
CRR-813	Adv. Auto Body Repair	3
CRR-501	Frame Machine Use	3
+	Humanities/Social Science Elective	3
	Total Hours	**18**
	Diploma Total Hours	**36**
Third Semester		
CRR-910	Auto Body Rebuild Project I	3
CRR-345	Advanced Metal Sectioning and Repair	3
CRR-852	Custom Painting & Airbrush	3
CRR-620	Electrical Mechanical Systems	3
CRR-415	Restraint Systems	3
+	Communications Elective	3
	Total Hours	**18**
Fourth Semester		
CRR-612	Steering / Suspension	3
CRR-750	Damage Estimating and Shop Operations	3
AUT-703	Automotive Heating & AC	3
CRR-911	Auto Body Project 2	3
CRR-817	Buff and Detail	3
+	General Education Elective	3
	Total Hours	**18**
	AAS Degree Total Hours	**72**
Optional		
BUS-113	Workplace Readiness	1.5

**Course may be substituted with a course from the same category as indicated in the approved general education course list.*

+Course satisfies general education requirement.

Program Requirement: Must pass all core program courses with the prefix CRR, AUT with a "C" or better for the semester prior to the one in which they are currently enrolling with a "C" or better. Any exception will have to be approved in writing by the Program Coordinator or Division Dean.

Graduation Requirement: Must pass all core program courses with the prefix CRR, AUT with a "C" or better.

Because of changes in technology, students taking programs over an extended period of time may be advised to retake courses to update skills and competencies.

Enrollment Date: Fall Semester
Minimum Required Credits: 36 (Diploma), 72 (AAS)
Campus: Fort Dodge
Department: Industrial Technology
CIP#: 47.06030200

Automotive Restoration Technology

Associate of Applied Science (AAS)

The Auto Restoration Technology Program will train students in the steps involved in restoring, welding, customizing, fabricating, custom painting, various ways of metal stripping and custom design. Along with the use of specialty tools and equipment used in today's custom shops.

The first year in this program is identical to the first year of the Auto Collision Technology program of study. Therefore, students could complete the two-year Auto Collision program and stay an addition year to complete the 3rd and 4th semesters of the Auto Restoration Program. Otherwise, students would follow the Auto Restoration program of study and complete their degree in two years.

Program of Study:

First Semester		**Sem. Hrs.**
MAT-743+	Technical Math*	3
CRR-303	Introduction to Auto Body Repair	3
CRR-337	Beginning Metal and Filler Work	3
CRR-110	Auto Body Welding	3
CRR-204	Repair of Plastics and Adhesives	3
CRR-309	Auto Body Prep & Mask	3
	Total Hours	**18**
Second Semester		
CRR-850	Computerized Paint Mixing	3
CRR-807	Auto Body Refinishing	3
CRR-401	Panel-Door Skin Replacement	3
CRR-813	Adv. Auto Body Repair	3
CRR-501	Frame Machine Use	3
+	Humanities/Social Sciences Elective	3
	Total Hours	**18**
Third Semester		
CRR-104	Intro to Auto Restoration	3
CRR-105	Intro to Specialty Tools	3
CRR-111	Street Rod Welding	3
CRR-341	Metal Fabrication	3
CRR-346	Metal Stripping	3
+	Communications Elective	3
	Total Hours	**18**
Fourth Semester		
CRR-913	Restoration Project I	3
CRR-853	Custom Street Rod Painting	3
CRR-613	Altered Steering and Suspension	3
CRR-914	Restoration Project 2	3
CRR-887	Complete Refinish and Detail	3
+	General Education Elective	3
	Total Hours	**18**
	AAS Degree Total Hours	**72**
Optional		
BUS-113	Workplace Readiness	1.5

**Course may be substituted with a course from the same category as indicated in the approved general education course list.*

+Course satisfies general education requirement.

Program Requirement: Must pass all core program courses with the prefix CRR with a "C" or better for the semester prior to the one in which they are currently enrolling with a "C" or better. Any exception will have to be approved in writing by the Program Coordinator or Division Dean.

Graduation Requirement: Must pass all core program courses with the prefix CRR with a "C" or better.

Because of changes in technology, students taking programs over an extended period of time may be advised to retake courses to update skills and competencies.

Enrollment Date: Fall Semester
Minimum Required Credits: 72
Campus: Fort Dodge
Department: Industrial Technology
CIP#: 47.06990200

Automotive Technology

Associate of Applied Science (AAS)

The Automotive Technology program is designed to prepare students for employment in the fast paced, ever-changing, high technology automotive service industry and to update those currently employed in the automotive industry. During the first year of the program, students develop competence in servicing today's automotive systems and additional diagnostic and repair expertise on automotive engines, heating and air conditioning systems, fuel and exhaust systems, ignition and emission systems, and suspension and steering systems. During the second year of the program, the diagnostic and repair emphasis is concentrated in the areas of advanced engine repair, manual transmissions and trans-axles, automatic transmissions and trans-axles, automotive electronics, power train control systems, and advanced brake systems. Upon successful completion of the Automotive Technology course of study, students will receive an Associate of Applied Science Degree.

Program of Study:

First Semester		Sem. Hrs.
MAT-743+	Technical Math*	3
AUT-108	Introduction to Transportation Technology	3
AUT-503	Automotive Brake Systems	3
AUT-164	Automotive Engine Repair	4
AUT-610	Automotive Electrical I	4
AUT-879	Automotive Lab I	1
	Total Hours	**18**
Second Semester		
AUT-304	Automotive Manual Drive Train and Axles	4
AUT-172	Advanced Automotive Engine Repair	2
AUT-404	Automotive Suspension and Steering	4
AUT-205	Automotive Automatic Transmissions and Transaxles	5
+	Humanities/Social Science Elective	3
	Total Hours	**18**
Third Semester		
AUT-856	Scan Tools	1
AUT-658	Automotive Electrical II	3
AUT-538	Advanced Braking Systems	1
AUT-831	Diesel Hybrid	3
AUT-659	Automotive Advanced Electrical	3
AUT-704	Automotive Heating and Air Conditioning	4
+	Communications Elective	3
	Total Hours	**18**
Fourth Semester		
AUT-828	Automotive Ignition Systems	4
AUT-835	Automotive Fuel Systems	4
AUT-801	Engine Performance	4
AUT-882	Automotive Lab II	3
+	General Education Elective	3
	Total Hours	**18**
	AAS Degree Total Hours	**72**
Optional		
BUS-113	Workplace Readiness	1.5

**Course may be substituted with a course from the same category as indicated in the approved general education course list.*

+Course satisfies general education requirement.

Program Requirement: Must pass all core program courses with the prefix AUT with a "C" or better for the semester prior to the one in which they are currently enrolling with a "C" or better. Any exception will have to be approved in writing by the Program Coordinator or Division Dean.

Graduation Requirement: Must pass all core program courses with the prefix AUT with a "C" or better.

Because of changes in technology, students taking programs over an extended period of time may be advised to retake courses to update skills and competencies.

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 72
Campus: Fort Dodge
Department: Industrial Technology
CIP#: 47.06040200

Baking and Pastry Arts

Certificate/Diploma

The Baking & Pastry Arts one-year diploma program will introduce students to modern techniques of producing artisan breads, classic pastry, pies, tarts, celebration cakes, confections and showpieces. Students will acquire skills in the preparation, production and presentation of baked goods, desserts and pastries, while also becoming proficient in food safety and cost control. Students will also complete an on-the-job training practicum in an industry field of their choice to complete their well-rounded diploma program.

Program of Study:

First Semester		Sem. Hrs.
HCM-108	Food Safety and Sanitation	3
HCM-128	Basic Baking and Lab	2
HCM-131	Basic Pastry and Lab	2
HCM-291	Cake Decorating	2
HCM-299	Creative Desserts	3
HCM-259	Jams, Jellies, and Preservatives	2
HCM-513	Hospitality Professionalism	1
	Total Hours	**15**
Second Semester		
HCM-293	Advanced Cake Decorating	2
HCM-194	International Breads	2
HCM-297	Chocolate Confections	2
HCM-129	Advanced Baking and Lab	2
HCM-132	Advanced Pastry and Lab	2
HCM-266+	Culinary Math*	3
HCM-519	Hospitality Professionalism II	1
BUS-113	Workplace Readiness*	1.5
	Total Hours	**15.5**
Summer Session		
HCM-511	Food Technology Internship	3
	Total Hours	**3**
	Diploma Total Hours	**33.5**

**Course may be substituted with a course from the same category as indicated in the approved general education course list.*

Program of Study: Certificate

HCM 108	Food Safety and Sanitation	3
HCM 128	Basic Baking and Lab	2
HCM 131	Basic Pastry and Lab	2
HCM 291	Cake Decorating	2
HCM 299	Creative Desserts	3
HCM 259	Jams, Jellies and Preservatives	2
	Certificate Total Hours	**14**

+Course satisfies general education requirement.

Enrollment Date: Fall Semester
Minimum Required Credits: 33.5 (Diploma), 14 (Certificate)
Campus: Fort Dodge
Department: Business
CIP#: 12.05010100

Biological Sciences

Associate of Arts (AA)/Associate of Science (AS)

Iowa Central offers foundational coursework in biology, chemistry, physics, and mathematics to prepare students for transfer to a 4-year institution. Iowa Central offers the unique opportunity for students to engage in undergraduate research while obtaining their Associate of Arts degree.

Suggested Program of Study: AA Degree

First Semester		Sem. Hrs.
ENG-105	Composition I	3
MAT-127	College Algebra and Trigonometry	5
BIO-112	General Biology I	4
CHM-165	General Chemistry I	4
SDV-108	The College Experience	1
	Total Hours	**17**
Second Semester		
ENG-106	Composition II	3
MAT-210	Calculus I	4
BIO-113	General Biology II	4
CHM-175	General Chemistry II	4
	Total Hours	**15**
Third Semester		
SPC-112	Public Speaking	3
CHM-261	Organic Chemistry I	4
CSC-110	Introduction to Computers	3
	Humanities Elective	3
	Social Science Elective	3
	Total Hours	**16**
Fourth Semester		
PSY-111	Introduction to Psychology	3
CHM-271	Organic Chemistry II	4
	Humanities Elective	3
	Humanities Elective	3
	Social Science Elective	3
	Total Hours	**16**

Microbiology and College Physics I and II are also recommended.

Suggested Program of Study: AS Degree

First Semester		Sem. Hrs.
ENG-105	Composition I	3
MAT-127	College Algebra and Trigonometry	5
BIO-112	General Biology I	4
CHM-165	General Chemistry I	4
SDV-108	The College Experience	1
	Total Hours	**17**
Second Semester		
ENG-106	Composition II	3
MAT-210	Calculus I	4
BIO-113	General Biology II	4
CHM-175	General Chemistry II	4
	Total Hours	**15**
Third Semester		
SPC-112	Public Speaking	3
PHY-162	College Physics I	4
CHM-261	Organic Chemistry I	4
CSC-110	Introduction to Computers	3
	Social Science Elective	3
	Total Hours	**17**
Fourth Semester		
PHY-172	College Physics II	4
CHM-271	Organic Chemistry II	4
	Social Science Elective	3
	Humanities Elective	3
	Total Hours	**14**

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 60
Campus: Fort Dodge, Storm Lake, and Webster City
Department: Science
CIP#: 24.0101200

Biotechnology

Associate of Applied Science (AAS)

The AAS Biotechnology degree offers extensive hands-on training for students who desire to work in specialized vocations associated with the manufacture of biologically-based products. The biotechnology/biofuels industry seeks employees with excellent analytical skills, accurate documentation skills, and the ability to operate and maintain sophisticated equipment. Successful completion of the biotechnology degree will provide students with the knowledge and skills necessary to be competitive in the biotechnology labor market. Beginning in the first year of the program, students will have the opportunity to visit area industries to observe the practical application of information obtained during classroom instruction. Students will be required to complete an internship before graduation.

Program of Study:

First Semester		Sem. Hrs.
BIO-112+	General Biology I	4
	or	
BIO-102+	Introductory Biology	3
	and	
BIO-103+	Introductory Biology Lab	1
BPT-162	Introduction to Biotechnology	2
BPT-163	Introduction to Biotechnology Lab	1
CHM-165	General Chemistry I	4
	or	
CHM-110	Introduction to Chemistry	3
	and	
CHM-111	Introduction to Chemistry Lab	1
PSY-111+	Introduction to Psychology*	3
	Total Hours	**14**
Second Semester		
ENV-111	Environmental Science	4
BPT-148	Biotechnology Methods I	3
BPT-149	Biotechnology Methods I Lab	1
CHM-130	Introduction to Organic and Biochemistry**	3
CHM-131	Introduction to Organic and Biochemistry Lab**	1
ENG-105+	Composition I	3
	Total Hours	**15**
Third Semester		
BPT-120	Molecular and Cellular Biology	3
BPT-152	Biotechnology Methods II	4
PHY-162	College Physics I	4
	or	
PHY-184	Applied Physics	4
MAT-157+	Statistics*	4
	Total Hours	**15**
Fourth Semester		
BPT-154	Biotechnology Methods III	4
BIO-186	Microbiology	4
BPT-220	Biotechnology Workforce Readiness	3
SPC-112+	Public Speaking*	3
	Total Hours	**14**
Summer Session		
BPT-932	Internship	4

**Course may be substituted with a course from the same category as indicated in the approved general education course list*

***Student may substitute Organic Chemistry I & II, CHM-261 & CHM-271 (in a 2 semester sequence), for Intro to Organic and Biochemistry w/Lab, CHM-130 & CHM-131.*

+Course satisfies general education requirement.

Enrollment Date: Fall Semester
Minimum Required Credits: 61
Campus: Fort Dodge
Department: Science
CIP#: 26.12010200

Business

Certificate/Associate of Professional Studies (APS)

The Associate of Professional Studies degree in Business is designed to offer students the flexibility of placement in a business position upon graduation or the opportunity to complete a curriculum that will satisfy most Business Administration requirements at four-year colleges. Students will have many choices in the selection of courses to develop their specific business skills in general business, accounting, office administration, or web development.

Upon graduation, successful students will have the background necessary to move into entry-level positions in the field of business. An option is given for students to participate in practicum courses. These courses will give students valuable experience as they work in local businesses during their course of study.

Suggested Program of Study:

First Semester		Sem. Hrs.
SDV-108+	The College Experience	1
ENG-105+	Composition I	3
ECN-120+	Principles of Macroeconomics	3
MAT-157+	Statistics	
	or	
MAT-140	Finite Math	3
ACC-142	Financial Accounting	3
	Humanities Elective	3
	Total Hours	**16**
Second Semester		
ENG-106+	Composition II	3
ECN-130	Principles of Microeconomics	3
CSC-110+	Intro to Computers	3
ACC-146	Managerial Accounting	3
MGT-101	Principles of Management	3
	Total Hours	**15**
Summer Session		
BUS-932	Internship (Optional)	3
Third Semester		
SPC-112+	Public Speaking	3
BUS-185	Business Law I	3
BUS-130	Introduction to Entrepreneurship	3
+	Social Science Elective	3
+	Humanities Elective	3
	Business Elective*	3
	Total Hours	**18**
Fourth Semester		
MKT-110	Principles of Marketing	3
	Business Elective*	3
	Business Elective*	3
+	Humanities Elective	3
+	Science Elective	3
	Total Hours	**15**
	APS Degree Total Hours	**64**

**Business electives must be chosen from the prefixes ACC, ADM, BCA, BUS, CIS, GRA, MAT, MKT, or MGT.*

+Course satisfies general education requirement.

Program of Study: Sales Certificate

MKT-110	Principles of Marketing	3
MKT-136	Introduction to Selling	3
MKT-145	Sales Management	3
	Certificate Total Hours	**9**

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 64 (APS), 9 (Certificate)
Campus: Fort Dodge, Storm Lake, and Webster City
Department: Business
CIP#: 52.02010200

Business Administration

Associate of Arts (AA)

Business graduates from four-year universities can expect work in all sectors of business, from small businesses and entrepreneurial start-ups to large Fortune 500 corporations and government agencies. Students can start their progression toward business career goals by completing a large part of their general education and core business courses at Iowa Central. In addition, the Business Department offers a wide range of business electives in accounting, business and web technology, and multimedia. Scholarships, field trips, state and national competitions, along with experienced business instructors help students succeed in today's business world.

Employment for business graduates exists in both profit and nonprofit organizations across the nation as well as internationally. Iowa Central's Business Administration program provides students opportunities to explore the many facets of business and also provides the necessary preparation for further study at a four-year institution.

The following schedule is a guide to obtain an Associate of Arts Degree from Iowa Central Community College. Students should check with the transfer institution on specific requirements. Additional courses may be required before taking a college-level English or Mathematics course.

Suggested Program of Study:

First Semester		Sem. Hrs.
CSC-110	Introduction to Computers	3
ENG-105	Composition I	3
MAT-157	Statistics	4
ACC-142	Financial Accounting	3
SDV-108	The College Experience	1
	Humanities Elective	3
	Total Hours	**17**
Second Semester		
ACC-146	Managerial Accounting	3
ENG-106	Composition II	3
	Math Elective	3
	Humanities Elective	3
	Science Elective & Lab	4
	Total Hours	**16**
Third Semester		
BUS-185	Business Law 1	3
ECN-120	Principles of Macroeconomics	3
SPC-112	Public Speaking	3
	Social Science/Humanities Elective	3
	Social Science Elective	3
	Total Hours	**15**
Fourth Semester		
MGT-101	Principles of Management	3
ECN-130	Principles of Macroeconomics	3
	Business Elective	3
	Business Elective	3
	Humanities Elective	3
	Total Hours	**15**

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 60
Campus: Fort Dodge, Storm Lake, and Webster City
Department: Business
CIP#: 24.01010200

Carpentry

Certificate/Diploma

The Carpentry program provides students with the skills needed to successfully enter the construction industry. The main emphasis of this program is residential carpentry with related instruction in concrete, dry wall, roofing, and mechanical systems. Building Science and "House as a System" technology are integrated throughout this program. Upon completion of this program students will be prepared for employment in the carpentry trade. Students who successfully complete this program will be awarded a diploma in Carpentry.

Program of Study: (start classes in June or September)

First Semester		Sem. Hrs.
BUS-112+	Business Mathematics*	3
CAD-194	Architectural Modeling	2
CON-102	Introduction to Residential Construction	2
CON-129	Concrete Lab and Theory	3
CON-131	Site Layout and Blueprint Reading	1
CON-301	Framing for Sustainable Design	7
CON-302	Building Science I	1
	Total Hours	**19**
Second Semester		
CON-321	Residential Estimating	2
CON-303	Building Science II	1
CON-133	Construction Technology Lab	4
CON-308	Interior Finish I	2
CON-175	Residential Construction Applications	6
IND-110	CPR, First Aid, and Safety	1
+	Communications Elective	3
	Total Hours	**19**
Summer Session		
CON-386	Sustainable Design	1
CON-219	Exterior Finish	4
CON-309	Interior Finish II	3
	Total Hours	**8**
	Diploma Total Hours	**46**
Optional		
CON-307	Basic Woodworking	3
BUS-113	Workplace Readiness	1.5

**Course may be substituted with a course from the same category as indicated in the approved general education course list.*

+Course satisfies general education requirement.

Program Requirement: Must pass all core program courses with the prefix CON with a "C" or better for the semester prior to the one in which they are currently enrolling with a "C" or better. Any exception will have to be approved in writing by the Program Coordinator or Division Dean.

Graduation Requirement: Must pass all core program courses with the prefix CON with a "C" or better.

Because of changes in technology, students taking programs over an extended period of time may be advised to retake courses to update skills and competencies.

Carpenter Assistant Certificate:

CON 102	Introduction to Residential Construction	2
CON 129	Concrete Lab and Theory	3
CON 131	Site Layout and Blueprint Reading	1
CON 301	Framing for Sustainable Design	7
CON 302	Building Science I	1
	Certificate Total Hours:	**14**

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 46 (Diploma), 14 (Certificate)
Campus: Fort Dodge
Department: Industrial Technology
CIP#: 46.02010100

Chiropractic

Associate of Arts (AA)/Associate of Science (AS)

Chiropractic is a system of therapy based upon the belief that the human nervous system coordinates all the body's functions and that disease results from a lack of normal nerve function. They use non-surgical treatments such as spinal manipulation and mobilization to bring comfort to those that have back pain, neck pain, arthritis, headaches, join discomfort, repetitive strains, as well as those with discomfort from car accidents and athletic injuries. Chiropractors assess their patients with a standard procedure of examination to arrive to a plan of treatment. These assessments may be done much more frequently depending on the pain complaints. These examinations consist of a consultation where medical and case histories are discussed, a physical examination, and possibly lab or x-ray analysis if ordered in more severe cases. Similar to physical therapists, chiropractors establish care plans with patients that provide opportunities for them to continue their treatments at home. There is much emphasis on nutrition, as well as exercise and lifestyle choices.

Suggested Program of Study: AA Degree

First Semester		Sem. Hrs.
ENG-105	Composition I	3
MAT-127	College Algebra & Trigonometry	5
CHM-165	General Chemistry I	4
BIO-112	General Biology I	4
SDV-108	The College Experience	1
	Total Hours	**17**
Second Semester		
PSY-111	Introduction to Psychology	3
ENG-106	Composition II	3
BIO-113	General Biology II	4
CHM-175	General Chemistry II	4
	Total Hours	**14**
Third Semester		
SPC-112	Public Speaking	3
CHM-261	Organic Chemistry I	4
CSC-110	Introduction to Computers	3
	Humanities Elective	3
	Social Science Elective	3
	Total Hours	**16**
Fourth Semester		
CHM-271	Organic Chemistry II	4
ECN-130	Principles of Micro Economics	3
	Humanities Elective	3
	Humanities Elective	3
	Total Hours	**13**

Suggested Program of Study: AS Degree

First Semester		Sem. Hrs.
ENG-105	Composition I	3
MAT-127	College Algebra &Trigonometry	5
BIO-112	General Biology I	4
CHM-165	General Chemistry I	4
SDV-108	The College Experience	1
	Total Hours	**17**
Second Semester		
ENG-106	Composition II	3
BIO-113	General Biology II	4
CHM-175	General Chemistry II	4
MAT-157	Statistics	4
PSY-111	Introduction to Psychology	3
	Total Hours	**18**
Third Semester		
SPC-112	Public Speaking	3
CHM-261	Organic Chemistry I	4
PHY-162	College Physics I	4
	Humanities Elective	3
	Total Hours	**14**
Fourth Semester		
CHM-271	Organic Chemistry II	4
PHY-172	College Physics II	4
ECN-130	Principles of Microeconomics	3
CSC-110	Introduction to Computers	3
	Total Hours	**14**

Other recommended courses: Human Anatomy & Physiology I and II, Microbiology, Intro to Organic and Biochemistry, Statistics, Principles of Marketing, Principles of Management, and an additional 6 credit hours of social science coursework.

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 60
Campus: Fort Dodge, Storm Lake, and Webster City
Department: Science
CIP#: 24.01010200

Computer Integrated Fabrication Technology

Certificate/Diploma/Associate of Applied Science (AAS)

The Computer Integrated Fabrication Technology program prepares students for entry level positions as numerical control technicians, general machinists, tool and die makers, mold makers, tool designers, and quality control technicians. During the first year, students will develop a solid foundation in basic machine tools such as lathes, milling machines, and surface grinders. In the second year, students will develop basic skills in CNC programming, CAD/CAM, jig & fixture making, tool & die, and mold making. Upon completion of the program, graduates are awarded an Associate of Applied Sciences (A.A.S.) Degree.

Program of Study - Industrial Mechinist (Diploma)

First Semester		Sem. Hrs.
MAT-743+	Technical Math*	3
IND-126	Precision Measurements Lab	1
IND-127	Shop Operations	1
IND-128	Blueprint Reading	1
IND-184	Mechanical Processes	2
MFG-256	Introduction to Lathe Operations	2
MFG-266	Introduction to Mill Operations	2
WEL-122	Beginning Welding	2
EGT-450	Computer Integrated Manufacturing	3
	Total Hours	**17**

Second Semester		
MAT-748+	Technical Math II*	3
CAD-230	Geometric Dimensioning and Tolerancing	2
MFG-238	Machine Processes I	2
MFG-257	Advanced Lathe	2
MFG-506	Quality Assurance	1
MFG-305	Computerized Numerical Control Operations	2
MFG-312	Advanced Computerized Numerical Control	2
+	Communications Elective	3
	Total Hours	**17**
	Diploma Total Hours	**34**

Summer Session	(Required)	
MFG-932	Internship	4
	Total Hours	**4**

Program of Study - AAS Degree

Third Semester		
MFG-422	Jig and Fixtures Design	3
MFG-320	Computer Assisted Machining	3
MFG-400	Introduction to Die Making	3
CAD-101	Introduction to CAD	3
+	Humanities/Social Science Elective	3
	Total Hours	**15**

Fourth Semester		
PHY-184+	Applied Physics~	4
CAD-164	Solid Modeling I	2
MFG-326	Computer Aided Machining II	3
MFG-453	Introduction to Mold Making	2
WEL-190	Gas Tungsten Arc Welding	2
WEL-196	Advanced Gas Tungsten Arc Welding (TIG)	2
WEL-710	Robotic Welding	3
	Total Hours	**18**
	AAS Degree Total Hours	**71**

Optional		
IND-208	Industrial Pumps and Drives	2
IND-185	Predictive and Preventative Maintenance	2
IND-116	Pneumatic and Hydraulic Systems	2
WEL-181	Gas Metal Arc Welding	2
BUS-113	Workplace Readiness	1.5
IND-110	CPR, First Aid and Safety	1

Machinist Assistant Certificate:

		Sem. Hrs.
IND-126	Precision Measurements Lab	1
IND-127	Shop Operations	1
IND-128	Blueprint Reading	1
IND-184	Mechanical Processes	2
MFG-256	Introduction to Lathe Operations	2
MFG-266	Introduction to Mill Operations	2
WEL-122	Beginning Welding	2
EGT-450	Computer Integrated Manufacturing	3
	Certificate Total Hours	**14**

**Course may be substituted with a course from the same category as indicated in the approved general education course list.*

+Course satisfies general education requirement.

~Course may be substituted with a course from the approved general education course list.

Program Requirement: Must pass all core program courses with the prefix MFG with a "C" or better for the semester prior to the one in which they are currently enrolling with a "C" or better. Any exception will have to be approved in writing by the Program Coordinator or Division Dean.

Graduation Requirement: Must pass all core program courses with the prefix MFG with a "C" or better.

Because of changes in technology, students taking programs over an extended period of time may be advised to retake courses to update skills and competencies.

Enrollment Date: Fall Semester
Minimum Required Credits: 14 (Certificate), 34 (Diploma), 71 (AAS)
Campus: Fort Dodge
Department: Industrial Technology
CIP#: 48.05010200

Computer Networking Technology

Associate of Applied Science (AAS)

Opportunities are virtually endless when you have mastered technology. Are you looking for a training program that is in high demand and is expected to show continued growth in the future? Entry-level salaries in computer repair and networking jobs range from $25,000 to $40,000 a year. Job opportunities are growing dramatically with the expansion of Internet and global networking.

The Computer Networking Technology Program is designed to provide graduates with the necessary skills to succeed in the jobs of the future. Graduates are able to administer a local area network, install and troubleshoot communication hardware/software and integrate technologies that the business world demands. The program aims to prepare one to be involved in a complex telecommunications environment.

Students learn to set up the complete system that facilities information exchanges between networks. The program offers a theoretical and hands-on approach to networking. For every hour of theory, students get two hours of lab time. Students assist with on-campus networks working in the colleges on campus help desk and get practical experience in a student-run network in the technology lab. They install the network, run the cable, debug and maintain the system.

The program is available to students with varied backgrounds. Sign up now and get on the fast track to the many employment opportunities including design, configuration, installation and maintenance of networks in small and large companies.

Program of Study:

First Semester		**Sem. Hrs.**
NET-774	Help Desk I* OR	1
CRJ-170	Overview of Cybercrime (online students)*	
NET-110+	Microcomputer Fundamentals	3
NET-138	Introduction to Networks	3
NET-790	PC Support I	3
+	English/Speech Elective	3
+	Social Science/Humanities Elective	3
	Total Hours	**16**
Second Semester		
NET-345	Windows Scripting** OR	3
CIS-604	Visual Basic (online students)**	
NET-612	Fundamentals of Network Security	3
NET-222	CISCO Routers	3
NET-791	PC Support II	3
NET-775	Help Desk II*	1
+	Math Elective	3
	Total Hours	**16**
Summer Session		
+	General Education Elective	3
Third Semester		
NET-750	Telecommunication Services	3
NET-232	CISCO Switches	3
NET-313	Windows Server	3
NET-413	Linux System Administration	4
NET-169	Network Design and Documentation	2
NET-776	Help Desk III*	1
	Total Hours	**16**
Fourth Semester		
NET-347	Windows Directory Scripting*** OR	2
CIS-612	Advanced Visual Basic (online students)***	
NET-485	Advanced Network Security	3
NET-152	Advanced Networking Technology	3
NET-242	CISCO Wide Area Network (WAN)	3
NET-343	Windows Directory Services	3
NET-455	Advanced Linux System Administration	3
NET-777	Help Desk IV*	1
	Total Hours	**18**
	AAS Total Hours	**69**

**Online students will take CRJ-170 (3 credits) instead of NET-774, 775, 776, and 777 (4 credits)*

***Online students will take CIS-604 (3 credits) instead of NET-345 (3 credits)*

****Online students will take CIS-612 (3 credits) instead of NET-347 (2 credits)*

+Course satisfies general education requirement.

Graduation Requirement: Must pass all courses with a "C" or better.

Enrollment Date: Fall Semester
Minimum Required Credits: 69
Campus: Fort Dodge
Department: Business
CIP#: 11.09010200

Computer Repair

Diploma

Students will develop skills in computer hardware repair and maintenance, operating systems, networking, and technical support. Hardware skills include assembly, upgrade, repair and troubleshooting of personal computers. The students will also focus on learning how to install, configure, and manage a variety of operating systems. These will include operating systems such as DOS, Microsoft Windows, and Linux. The students will be introduced to the basics of networking including setting up networks, what is required for Internet access, and basic network troubleshooting.

Students interested in computer repair must also have good professional skills. These include technical writing, customer service, help desk operations, and user training. Courses will feature hands-on experience as well as theory to properly equip the student for career success. Another feature of the program is preparation for industry certifications. These certifications include A+, N+ and possibly MCP. Upon successful completion of this program, students will be awarded a diploma in Computer Repair.

Program of Study:

First Semester		**Sem. Hrs.**
NET-774	Help Desk I	1
NET-110	Microcomputer Fundamentals	3
NET-138	Introduction to Networks	3
NET-790	PC Support I	3
+	English/Speech Elective	3
+	Social Science/Humanities Elective	3
	Total Hours	**16**
Second Semester		
NET-345	Windows Scripting	3
NET-612	Fundamental Network Security	3
NET-222	CISCO Routers	3
NET-791	PC Support II	3
NET-775	Help Desk II	1
+	Math Elective	3
	Total Hours	**16**
	Diploma Total Hours	**32**

+Course satisfies general education requirement.

Graduation Requirement: Must pass all core program courses with the prefix NET with a "C" or better.

Enrollment Date: Fall Semester
Minimum Required Credits: 32
Campus: Fort Dodge
Department: Business
CIP#: 11.09010100

Computer Science

Associate of Science (AS)

Technology is intricately woven into our daily lives, and the devices and applications we use are changing rapidly. Most people are never without their cell phone, and being off-line is an unfamiliar concept, at least for students. Computers hold our music and photo libraries, they allow us to watch movies and television shows anywhere and anytime, and we rely more and more heavily on the Web for researching most any question or subject. Today's technology provides access to most anyone and anything worldwide.

Computer scientists are integral to numerous aspects of our everyday lives and are responsible for advances in many diverse fields in the modern world such as computer security, the learning sciences, weather forecasting, smartphone application development, and network gaming. These industries are able to continuously evolve and improve through the work of computer scientists.

Suggested Program of Study:

First Semester		Sem. Hrs.
ENG-105	Composition I	3
CIS-162	C++	4
MAT-210	Calculus I	4
PSY-111	Introduction to Psychology	3
SDV-108	The College Experience	1
	Total Hours	**15**
Second Semester		
ENG-106	Composition II	3
CIS-153	Data Structures	4
MAT-216	Calculus II	4
	Social Science Elective	3
	Total Hours	**14**
Third Semester		
SPC-112	Public Speaking	3
MAT-157	Statistics	4
PHY-212	Classical Physics I	5
	Humanities Elective	3
	Total Hours	**15**
Fourth Semester		
PHY-222	Classical Physics II	5
MAT-219	Calculus III	4
MAT-226	Differential Equations with Laplace	3
CIS-604	Visual Basic	3
	Elective	3
	Total Hours	**18**

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 60
Campus: Fort Dodge
Department: Math
CIP#: 24.01010200

Conservation

Associate of Arts (AA)

Iowa Central offers foundational coursework in biology, chemistry, physics, and mathematics to prepare students for transfer to a 4-year institution. Conservation scientists and foresters manage the overall land quality of forests, parks, rangelands, and other natural resources on privately or publicly owned lands. Iowa Central offers the unique opportunity for students to engage in undergraduate research while obtaining their Associate of Arts degree.

Program of Study:

First Semester		Sem. Hrs.
ENG-105	Composition I	3
MAT-127	College Algebra and Trigonometry	5
BIO-112	General Biology I	4
CHM-165	General Chemistry I	4
SDV-108	The College Experience	1
	Total Hours	**17**
Second Semester		
ENG-106	Composition II	3
MAT-210	Calculus I	4
BIO-113	General Biology II	4
CHM-175	General Chemistry II	4
	Total Hours	**15**
Third Semester		
SPC-112	Public Speaking	3
CHM-261	Organic Chemistry I	4
CSC-110	Introduction to Computers	3
	Humanities Elective	3
	Social Science Elective	3
	Total Hours	**16**
Fourth Semester		
PSY-111	Introduction to Psychology	3
CHM-271	Organic Chemistry II	4
	Humanities Elective	3
	Humanities Elective	3
	Social Science Elective	3
	Total Hours	**16**

Microbiology and College Physics are also recommended.

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 60
Campus: Fort Dodge
Department: Science
CIP#: 24.01010200

Criminal Justice

Diploma/Associate of Applied Science (AAS)

The Criminal Justice field offers many challenging career opportunities. Law Enforcement, Corrections, Judicial Services, and Forensic Laboratories are in need of qualified and trained personnel. Some of the duties in these career fields include investigations, traffic enforcement, evidence collection, inmate supervision, hunting regulation enforcement, correctional counseling, court services administration, and many more.

One of our programs strengths is the fact that many of our instructors are currently working or have worked in the Criminal Justice field. The ranks of our teaching staff have included a police chief, a chief deputy, a detective, criminal prosecutors, a former trooper, a correctional officer, and many other local Criminal Justice personnel. The Criminal Justice program can be taken as a diploma program when 30 core semester hours are completed or as an Associate of Applied Sciences or Associate of Arts degree when certain core semester hours are completed in accordance with each degree's requirements.

Specific departmental requirements govern entry into all Criminal Justice careers. In the State of Iowa all certified law enforcement officials must first attend and successfully complete an accredited law enforcement academy. Iowa Central's Criminal Justice Program will help prepare you for that challenge.

Indoor Simulated Firearms Range: Iowa Central Criminal Justice utilizes current state of the art Simunition firearms equipment that allows students the ability to learn basic firearms skills and tactics from qualified instructors on site. Students use two primary weapons systems: the Glock 17T and the DPMS AR-15T. These weapon systems utilize training marker rounds which are much like a "paintball" style round, but much more realistic. This training allows students the ability to experience practical hands-on skills that will help them in their future careers in the criminal justice system. These weapons systems are currently used by law enforcement and corrections training around the nation.

Iowa Law Enforcement Credit: Students who have graduated from the Iowa Law Enforcement Academy may receive up to 18 hours of Criminal Justice credit at Iowa Central Community College.

Program of Study: Criminal Justice is a two-year Associate of Applied Sciences Study Program offered at Iowa Central Community College. Students may enroll at any of the three centers for the general education portion of the program. The Criminal Justice program can be taken as a diploma program when 30 core semester hours are completed, or an Associate of Applied Science Study Degree program when 67 semester hours are completed.

Program of Study:

	First Semester	Sem. Hrs.
ENG-105+	Compostition I	3
CRJ-100	Introduction to Criminal Justice	3
CRJ-132	Consitutional Law	3
SDV-108+	The College Experience	1
+	Math Elective	3
+	Social Science Elective	3
	Total Hours	**16**
	Second Semester	
ENG-106+	Composition II	3
CSC-110+	Introduction to Computers	3
CRJ-110	Patrol Procedures	3
CRJ-133	Consitutional Criminal Procedure	3
CRJ-141	Criminal Investigation	3
CRJ-120	Introduction to Corrections	3
	Total Hours	**18**
	Third Semester	
SPC-112+	Public Speaking	3
CRJ-160	Introduction to Forensic Investigation	3
CRJ-300	Perspectives of Homeland Security	3
	Criminal Justice Elective	3
+	Social Science Elective	3
+	Humanities Elective	3
	Total Hours	**18**
	Fourth Semester	
	Criminal Justice Elective	3
	Criminal Justice Elective	3
+	Humanities Elective	3
+	Science Elective	3
+	Social Science Elective	3
	Total Hours	**15**
	AAS Degree Total Hours	**67**

Criminal Justice Elective Courses

CRJ-152	Defensive Tactics	3
CRJ-170	Overview of Cybercrime	3
CRJ-200	Criminology	3
CRJ-201	Juvenile Delinquency	3
CRJ-206	Terrorism Response	3
CRJ-260	Medicolegal Death Investigation	3

Program of Study - Diploma

Choose 9 of the following 14 courses (27 credits)

CRJ-100 Intro to Criminal Justice
CRJ-132 Constitutional Law
CRJ-110 Patrol Procedures
CRJ-133 Constitutional Criminal Procedures
CRJ-141 Criminal Investigation
CRJ-120 Intro to Corrections
CRJ-160 Intro. To Forensic Investigation
CRJ-300 Perspectives of Homeland Security
CRJ-152 Defensive Tactics
CRJ-170 Overview of Cybercrime
CRJ-200 Criminology
CRJ-201 Juvenile Delinquency
CRJ-206 Terrorism Response
CRJ-260 Medicolegal Death Investigation
+Social Science Elective (3 credits)*
Diploma Total Hours 30

**The following Social Science courses are highly recommended for students planning to complete a Bachelor's degree in Criminal Justice at a four-year institution: Introduction to Psychology (PSY:111), American National Government (POL:111), Introduction to Sociology (SOC:110) and Minority Group Relations (SOC:200)*

+Course satisfies general education requirement.

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 30 (Diploma), 67 (AAS)
Campus: Fort Dodge, Storm Lake, and Webster City
Department: Business
CIP#: 43.01070200

Culinary Arts & Hospitality Management

Certificate/Diploma/Associate of Applied Science (AAS)

The Culinary Arts Program will offer an Associate in Applied Science (AAS) degree through Iowa Central Community College. This program combines the important components of food preparation and culinary arts, along with nutrition, food safety and sanitation, baking, art of cuisine, and food service management.

The culinary arts program will also provide an introduction to hospitality and restaurant management with applicable hands-on experience throughout the program. These combined learning experiences will provide program graduates with the necessary skill sets to successfully enter the food industry. The students will complete an on-the-job training practicum in an industry field of their choice to complete their well-rounded culinary program. This will provide the student with a real-life experience and introduction, not only in culinary arts, but also food service management.

Program of Study - AAS Degree

First Semester		Sem. Hrs.
HCM-108	Food Safety and Sanitation	3
HCM-292	Food Preparation	3
HCM-298	Knife Skills	2
HCM-148	Food Fundamentals	3
HCM-294	Food Preparation 2	3
HCM-513	Hospitality Professionalism	1
	Total Hours	**15**
Second Semester		
HCM-305	Meat and Fish Fabrication	2
HCM-228	Culinary Nutrition & Food Science	3
HCM-285	Advanced Food Preparation	4
HCM-263	International Cuisine	3
HCM-266+	Culinary Math*	3
HCM-519	Hospitality Professionalism II	1
	Total Hours	**16**
Summer Session		
HCM-511	Food Technology Internship	3
Third Semester		
HCM-336	Event Planning and Customer Service I	3
HCM-300	Beverage Management/Servsafe Alcohol	2
HCM-608	Introduction to Hospitality	3
HCM-513	Hospitality Professionalism	1
MKT-110+	Principles of Marketing	3
+	Social Science/Humanities Elective	3
	Total Hours	**15**
Fourth Semester		
HCM-242	Event Planning/Customer Service	2
HCM-332	Hospitality Personnel Management	2
HCM-519	Hospitality Professionalism II	1
ACC-102	Workplace Accounting	3
BUS-114+	Workplace Communications*	3
CSC-110+	Introduction to Computers	3
MGT-101	Principles of Management	3
	Total Hours	**17**
	AAS Degree Total Hours	**17**

**Course may be substituted with a course from the same category as indicated in the approved general education course list.*

+Course satisfies general education requirement.

Program of Study - Culinary Arts (Diploma)

First Semester		Sem. Hrs.
HCM-108	Food Safety and Sanitation	3
HCM-292	Food Preparation	3
HCM-298	Knife Skills	2
HCM-148	Food Fundamentals	3
HCM-294	Food Preparation 2	3
HCM-513	Hospitality Professionalism	1
	Total Hours	**15**
Second Semester		
HCM-305	Meat and Fish Fabrication	2
HCM-228	Culinary Nutrition & Food Science	3
HCM-285	Advanced Food Preparation	4
HCM-263	International Cuisine	3
HCM-266+	Culinary Math*	3
HCM-519	Hospitality Professionalism II	1
	Total Hours	**16**
Summer Session		
HCM-511	Food Technology Internship	3
	Diploma Total Hours	**34**

Program of Study - Hospitality Management (Diploma)

First Semester		Sem. Hrs.
HCM-108	Food Safety and Sanitation	3
HCM-336	Event Planning & Customer Service 1	3
HCM-300	Beverage Management/Selfserve Alcohol	2
HCM-608	Introduction to Hospitality	3
HCM-513	Hospitality Professionalism	1
MKT-110+	Principles of Marketing	3
	Total Hours	**15**
Second Semester		
HCM-242	Event Planning/Customer Service	2
HCM-332	Hospitality Personnel Management	2
HCM-266+	Culinary Math*	3
HCM-519	Hospitality Professionalism II	1
ACC-102	Workplace Accounting	3
CSC-110+	Introduction to Computers	3
MGT-101	Principles of Management	3
	Total Hours	**17**
Summer Session		
HCM-511	Food Technology Internship	3
	Diploma Total Hours	**35**

Food Preparation Certificate

		Sem. Hrs.
HCM-108	Food Safety and Sanitation	3
HCM-292	Food Preparation	3
HCM-298	Knife Skills	2
HCM-148	Food Fundamentals	3
HCM-294	Food Preparation 2	3
	Certificate Total Hours	**14**

Enrollment Date: Fall Semester
Minimum Required Credits: 14 (Certificate), 34 (Culinary Diploma), 35 (Hospitality Diploma), 66 (AAS)
Campus: Fort Dodge
Department: Business
CIP#: 12.05000200 (Culinary), 52.09010100 (Hospitality)

Dental Hygiene

Associate of Applied Science (AAS)

The Dental Hygiene (DH) program prepares the student to provide comprehensive therapeutic oral health care and preventative education directly to diverse population groups in both clinical and community environments. An integral part of the dental team, the dental hygienist provides valuable oral health care services which may include oral assessments, oral cancer screenings, removing deposits from the teeth, exposing and processing dental radiographs, the administration of local anesthesia, nutritional counseling, sealant placement, fluoride treatments and preventative education.

Program Mission Statement: The Dental Hygiene Program is committed to providing a diverse learning environment built on a strong theoretical base in: psychological sciences, basic sciences, and evidence-based dental hygiene sciences, utilizing the state-of-the-art Dental Hygiene clinic.

Student Responsibilities: Students receive clinical experience at the Iowa Central Dental Hygiene Clinic located at the Fort Dodge Campus. A medical health form and certification in basic cardiac life support must be completed prior to attending clinical sessions and the student must begin the hepatitis immunization series during their first semester. Students are required to purchase dental hygiene instruments and other personal protective materials. Transportation to various community projects is the responsibility of the student. Dental Hygiene is a licensed profession. Applicants for licensure are asked if they have ever been charged, convicted, found guilty of, or entered a plea of guilty or no contest to a felony or misdemeanor crime. A prior criminal history or record or habitual use of drugs or intoxicants can be grounds for licensure or licensure registration denial.

Admissions Criteria: This program is a selective, limited enrollment program. Students who would like to be considered for admission must complete an additional Dental Hygiene application packet. The deadline for the Dental Hygiene application for consideration for the following fall is March 1 of each year. Students must also be enrolled in, or have previously completed any pre-requisites of the program with a "C" or higher before they will be considered for the program. Students must submit proof of their enrollment in/or completion prior to the application deadline. The following criteria is required for applicants: a minimum of a high school diploma (GPA 2.5) or equivalent (GED 550); minimum Asset scores of 40 in each category, Compass (writing 65, reading 80, pre-algebra 39 or algebra 46), or ACT scores of 18 in reading, English, and math. High School Biology, Algebra, English, and Chemistry are highly recommended. It is recommended that the required general education courses are completed prior to entry into the Dental Hygiene program.

Accreditation: The program in dental hygiene is accredited by the Commission on Dental Accreditation and has been granted the accreditation status of "approval without reporting requirements". The Commission is a specialized accrediting body recognized by the United States Department of Education. The Commission on Dental Accreditation can be contacted at 312-440-4653 or at 211 East Chicago Avenue, Chicago, IL 60611.

Program of Study

Pre-requisites		Sem. Hrs.
BIO-168+	Human Anatomy & Physiology I	4
BIO-173+	Human Anatomy & Physiology II	4
CHM-110+	Introduction to Chemistry	3
CHM-111+	Introduction to Chemistry Lab	1
BIO-186+	Microbiology	4
	Total Hours	**16**

First Semester		
DHY-174	Principles of Dental Hygiene	5
DHY-114	Dental Hygiene Anatomical Sciences	4
DHY-163	Radiology	3
DHY-121	Oral Histology and Embryology	2
	Total Hours	**14**

Second Semester		
DHY-183	Dental Hygiene I Theory	2
DHY-184	Clinical Dental Hygiene I	3
DHY-140	General & Oral Pathology	2
DHY-209	Periodontology	3
DHY-233	Preventative Dentistry/Nutrition	2
PSY-111+	Introduction to Psychology*	3
	Total Hours	**15**

Third Semester		
DHY-278	Dental Hygiene II Theory	2
DHY-280	Clinical Dental Hygiene II	3
DHY-224	Dental Materials	1
CHM-130+	Introduction to Organic & Biochemistry*	3
CHM-131+	Introduction to Organic & Biochemistry Lab*	1
	Total Hours	**10**

Fourth Semester		
DHY-293	Dental Hygiene III Theory	2
DHY-292	Clinical Dental Hygiene III	5
DHY-256	Community Dentistry	2
DHY-132	Dental Pharmacology	3
ENG-105+	Composition I*	3
	Total Hours	**15**

Fifth Semester		
DHY-303	Dental Hygiene IV Theory	2
DHY-302	Clinical Dental Hygiene IV	5
DHY-253	Community Oral Health Rotation	1
DHY-265	Current Dental Hygiene Practice	2
SOC-110+	Introduction to Sociology*	3
SPC-112+	Public Speaking*	3
	Total Hours	**16**

+Course satisfies general education requirement.

Program Requirement: The student must complete all Dental Hygiene (DHY) core classes within three years.

Graduation Requirement: Must pass all program courses with a "C" or better.

Applicants are strongly encouraged to complete the 16 credits of Arts & Science classes prior to program entry.

Enrollment Date: Fall Semester
Minimum Required Credits: 86
Campus: Fort Dodge
Department: Health Sciences
CIP#: 51.06020200

Dentistry

Associate of Arts (AA)/Associate of Science (AS)

Dentistry is the health profession that deals with the prevention, diagnosis and treatment of disorders in the teeth and adjacent tissues. Dentistry is now highly recommended for overall general health. Most dentists are general practitioners that see patients for routine office visits especially because of prevention and treatment of tooth decay and gum disease. Dentists often spend time with restorations that include filling cavities, extracting teeth that cannot be repaired, root canals, reviewing x-rays, preparing fitted dentures, and treating problems associated with gum disease. Another important aspect of being a dentist is health education. Preventative dental care is essential to good health and patients are encouraged to brush, floss, use fluoride, and have good nutrition to protect their teeth and gums.

There are nine different specialties (Public Health Dentistry, Endodontics, Oral and Maxillofacial Pathology, Oral and Maxillofacial Radiology, Oral and Maxillofacial Surgery, Orthodontics, Pediatric Dentistry, Periodontics, Prosthodontics) recognized by the American Dental Association (ADA) as well as other common niches for dentistry like oral medicine, dental implantation, and dental aesthetics.

Suggested Program of Study: AA Degree

First Semester		Sem. Hrs.
ENG-105	Composition I	3
BIO-112	General Biology I	4
CHM-165	General Chemistry I	4
SDV-108	The College Experience	1
	Humanities Elective	3
	Total Hours	**15**
Second Semester		
ENG-106	Composition II	3
BIO-113	General Biology II	4
CHM-175	General Chemistry II	4
MAT-157	Statistics	4
	Total Hours	**15**
Third Semester		
PSY-111	Introduction to Psychology	3
SPC-112	Public Speaking	3
CHM-261	Organic Chemistry I	4
CSC-110	Introduction to Computers	3
	Humanities Elective	3
	Total Hours	**16**
Fourth Semester		
BIO-186	Microbiology	4
CHM-271	Organic Chemistry II	4
ECN-130	Principles of Microeconomics	3
	Humanities Elective	3
	Social Science Elective	3
	Total Hours	**17**

Suggested Program of Study: AS Degree

First Semester		Sem. Hrs.
ENG-105	Composition I	3
BIO-112	General Biology I	4
CHM-165	General Chemistry I	4
SDV-108	The College Experience	1
	Humanities Elective	3
	Total Hours	**15**
Second Semester		
ENG-106	Composition II	3
BIO-113	General Biology II	4
CHM-175	General Chemistry II	4
CSC-110	Introduction to Computers	3
MAT-157	Statistics	4
	Total Hours	**18**
Third Semester		
PSY-111	Introduction to Psychology	3
SPC-112	Public Speaking	3
PHY-162	College Physics I	4
CHM-261	Organic Chemistry I	4
	Total Hours	**14**
Fourth Semester		
BIO-186	Microbiology	4
CHM-271	Organic Chemistry II	4
PHY-172	College Physics II	4
ECN-130	Principles of Microeconomics	3
	Total Hours	**15**

Recommended General Education Courses:
Introduction to Ethical Conflicts
Art Appreciation
History Courses
Minority Group Relations
Calculus
American Diversity

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 60
Campus: Fort Dodge
Department: Science
CIP#: 24.01010200

Diesel Technology

Associate of Applied Science (AAS)

The Diesel Technology program is designed to provide training in the repair and maintenance of agricultural, over-the-road diesel trucks and off-road diesel power units. The Diesel Mechanic graduates will be trained in entry level skills of mechanical, electrical, fuel systems, power trains, brake systems, air conditioning, welding, and hydraulics. Upon completion of the program, graduates are awarded an Associate of Applied Science (A.A.S.) Degree.

Program of Study:

First Semester		Sem. Hrs.
MAT-743+	Technical Math*	3
DSL-323	Introduction to Diesel Technology	3
DSL-426	Introduction to Medium and Heavy Duty Electronics	3
DSL-427	Advanced Medium and Heavy Duty Electronics	3
DSL-620	Semi Tractor Trailer Suspension & Alignment	3
DLS-634	Tractor Trailer Pneumatic Brake Service	3
	Total Hours	**18**
Second Semester		
DSL-357	Diesel Engines I	3
DSL-358	Diesel Engines II	3
DSL-445	Diesel Fuel Systems	3
DSL-804	Ag and Commercial Equipment Maintenance	3
DSL-547	Ag and Commercial Power Train	3
+	Humanities/Social Science Elective	3
	Total Hours	**18**
(required)		
DSL-932	Diesel Technology Internship	4
Third Semester		
DSL-403	Diesel Electronic Engine Controls I	3
DSL-413	Diesel Electronic Engine Controls II	3
DSL-840	Diesel Operations and Maintenance I	3
DSL-841	Diesel Operations and Maintenance II	3
DSL-850	On-Board Communications Systems	3
WEL-122	Beginning Welding	2
+	Communications Elective	3
	Total Hours	**20**
Fourth Semester		
DSL-838	Diesel Automotive Systems	3
DSL-743	Air Conditioning and Refrigeration	3
DSL-545	Power Train and Maintenance	3
DSL-615	Mobile Hydraulics Systems	3
DSL-835	Commercial Drivers License	2
PHY-184+	Applied Physics~	4
	Total Hours	**18**
	AAS Degree Total Hours	**78**
Optional		
BUS-113	Workplace Readiness	1.5

**Course may be substituted with a course from the same category as indicated in the approved general education course list.*

+Course satisfies general education requirement.

~Course may be substituted with a course from the approved general education course list.

Program Requirement: Must pass all core program courses with the prefix DSL with a "C" or better for the semester prior to the one in which they are currently enrolling with a "C" or better. Any exception will have to be approved in writing by the Program Coordinator or Division Dean.

Graduation Requirement: Must pass all core program courses with the prefix DSL with a "C" or better.

Because of changes in technology, students taking programs over an extended period of time may be advised to retake courses to update skills and competencies.

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 78
Campus: Fort Dodge
Department: Industrial Technology
CIP#: 47.06050200

Digital Mass Communications

Certificate/Associate of Applied Arts (AAA)

The Associate of Applied Arts in Digital Mass Communications will prepare students for many exciting positions within the communications industry, such as digital and social media, journalism, and public relations, while combining general education requirements with hands-on job specific experiences. The Digital Mass Communications major provides a well-integrated, hands-on learning environment related to digital media industries and production. Students learn the skills to craft stories, messages, and a voice for digital content and social media. They will plan, create, and manage digital content, and utilizing state-of-the-art technology will produce professional content such as The Collegian, Iowa Central's student newspaper, as well as podcasts, images, and social media content.

Degree options include the A.A.A. degree and/or Certificates in Social Media Management or Public Relations Marketing.

Program of Study:

First Semester		Sem. Hrs.
GRA-176	Layout Design I	3
JOU-121	Newswriting and Reporting	3
ENG-105+	Composition I	3
SDV-108	The College Experience	1
JOU-210	Media Law and Ethics	3
ART-184+	Photography	3
	Total Hours	**16**
Second Semester		
PHT-185	Photography II	3
MMS-241	Public Relations & Marketing	3
GRA-177	Layout Design II	3
COM-142	Mass Media Writing	3
SMM-170	Social Media Campaigns	3
	Total Hours	**15**
Third Semester		
GRA-158	Web Multimedia	3
CIS-265	Photoshop I	3
COM-150	Mass Communications & Society	3
JOU-200	AP Editing	3
SMM-200	Emerging Media Technologies	3
JOU-941	Practicum	1
	Total Hours	**16**
Fourth Semester		
SPC-112+	Public Speaking	3
SMM-210	Web Analytics	3
COM-148	Diversity & the Media	3
COM-170	Crisis Media Management	3
MAT 111+	Math for Liberal Arts	4
JOU-941	Practicum	1
	Total Hours	**17**
Fifth Semester		
+	Social Science/Humanities Elective	3
SMM-910	Internship	3
	Total Hours	**6**

Program of Study: Social Media Management Certificate

SMM-170	Social Media Campaigns	3
SMM-200	Emerging Media Technologies	3
SMM-210	Web Analytics	3
	Certificate Total Hours	**9**

Program of Study: Public Relations Marketing Certificate

MMS-241	Public Relations & Marketing	3
SMM-170	Social Media Campaigns	3
COM-170	Crisis Media Management	3
	Certificate Total Hours	**9**

Enrollment Date: Fall Semester
Minimum Required Credits: 69
Campus: Fort Dodge
Department: Communications
CIP#: 09.07020200

Education - Early Childhood

Diploma

An early childhood caregiver is knowledgeable in the growth and development of infants and toddlers, as well as young children. Offering opportunities and experiences for infants and young children that will allow for them to navigate the world around them and move to new levels of thinking and understanding about themselves. Learning the challenging responsibility to set up a supportive environment for a group of toddlers or preschoolers, develop a relationship with each one, and meet their needs as individuals and as a group is a core understanding in early childhood. Children's learning experiences during this period in their lives allow for successful outcomes later in life.

Iowa Central's Early Childhood Education program is designed for students planning to work with children in a preschool, infant/toddler, family, day care, or home visitor setting. It is a one year diploma with the option of obtaining your Paraeducator certification within the program.

Suggested Program of Study:

First Semester		Sem. Hrs.
ECE-103	Intro to Early Childhood Education	3
ECE-133	Child, Health, Safety, and Nutrition	3
ECE-158	Early Childhood Curriculum I	3
PSY-222	Child Psychology	3
HSV-162	Intro to Human Disability Services	3
	Total Hours	**15**
Second Semester		
ECE-159	Early Childhood Curriculum II	3
ECE-221	Infant/Toddler Care and Education	3
ECE-243	Early Childhood Guidance	3
ECE-262	Early Childhood Field Experience	3
+	General Education Requirement	3
	Total Hours	**15**

Additional Optional Courses:

EDU-213	Introduction to Education	3
EDU-920	Paraeducator Field Experience	2

+Must be selected from areas I-IV on approved general education list.

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 30
Campus: Fort Dodge, Storm Lake, and Webster City
Department: Social Science
CIP#: 24.01010200

Education - Elementary

Associate of Arts (AA)

To become a teacher, a student must graduate from an accredited teacher training institution. Students can attend Iowa Central for their first two years and then transfer to a public or private college for the remaining two years. After completing the necessary coursework, students at Iowa Central can receive an Associate of Arts degree with a concentration in Elementary Education. Iowa Central's education curriculum combines a strong arts and science core with professional courses in education. This curriculum provides general education coursework, specific skills training, and direct experience working with children and young people in a school setting. The student who completes an Associate of Arts degree at Iowa Central with a concentration in Elementary Education will be prepared to function in a variety of supportive roles as part of an educational team.

Our education students have gone to a wide variety of senior colleges and universities. Iowa Central students are prepared to do well and have become award-winning educators. Our graduates regularly attend all major colleges in Iowa as well as the three regent universities. They are employed as classroom teachers, administrators, counselors, and librarians. Course work at Iowa Central has provided a strong foundation to support their efforts.

Suggested Program of Study:

First Semester		Sem. Hrs.
EDU-213	Introduction to Education	3
PSY-111	Introduction to Psychology	3
ENG-105	Composition I	3
MAT-111	Math for Liberal Arts	4
SDV-108	The College Experience	1
	Total Hours	**14**
Second Semester		
ENG-106	Composition II	3
MUS-104	Exploring Music	3
HIS-113	Western Civ: Early Mod to Present	4
BIO-102	Introductory Biology	3
BIO-103	Introductory Biology Lab	1
	Total Hours	**14**
Third Semester		
EDU-235	Children's Literature	3
PSY-121	Developmental Psychology	3
SPC-112	Public Speaking	3
REL-105	Introduction to Religion	3
CHM-110	Introduction to Chemistry	3
CHM-111	Introduction to Chemistry Lab	1
	Total Hours	**16**
Fourth Semester		
EDU-115	Education and the Teaching Process	4
EDU-255	Technology in the Classroom	3
MAT-117	Math for Elementary Teachers	3
PSY-281	Educational Psychology	3
	Cultural Studies Elective	3
	Total Hours	**16**

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 60
Campus: Fort Dodge, Storm Lake, and Webster City
Department: Social Science
CIP#: 24.01010200

Education - Secondary

Associate of Arts (AA)

To become a teacher, a student must graduate from an accredited teacher training institution. Students can attend Iowa Central for their first two years and then transfer to a public or private college for the remaining two years. After completing the necessary coursework, students at Iowa Central can receive an Associate of Arts degree with a concentration in Secondary Education. Iowa Central's education curriculum combines a strong arts and science core with professional courses in education. This curriculum provides general education coursework, specific skills training, and direct experience working with children and young people in a school setting. The student who completes an Associate of Arts degree at Iowa Central with a concentration in Secondary Education will be prepared to function in a variety of supportive roles as part of an educational team.

Our education students have gone to a wide variety of senior colleges and universities. Iowa Central students are prepared to do well and have become award-winning educators. Our graduates regularly attend all major colleges in Iowa as well as the three regent universities. They are employed as classroom teachers, administrators, counselors, and librarians. Course work at Iowa Central has provided a strong foundation to support their efforts.

Suggested Program of Study:

First Semester		Sem. Hrs.
EDU-213	Introduction to Education	3
PSY-111	Introduction to Psychology	3
ENG-105	Composition I	3
POL-111	American National Government	3
SDV-108	The College Experience	1
	Elective (Concentration)	3
	Total Hours	**16**
Second Semester		
PSY-121	Developmental Psychology	3
ENG-106	Composition II	3
PHI-145	Introduction to Ethical Conflicts	3
BIO-102	Introductory Biology	3
BIO-103	Introductory Biology Lab	1
EDU-255	Technology in the Classroom	3
	Total Hours	**16**
Third Semester		
SOC-110	Introduction to Sociology	3
SPC-112	Public Speaking	3
MAT-111	Math for Liberal Arts	4
	Humanities Elective	3
	Elective (Concentration)	3
	Total Hours	**16**
Fourth Semester		
EDU-115	Education and the Teaching Process	4
PSY-281	Educational Psychology	3
GEO-121	World Geography	3
REL-105	Introduction to Religion	3
	Total Hours	**13**

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 60
Campus: Fort Dodge, Storm Lake, and Webster City
Department: Social Science
CIP#: 24.01010200

Electrical Apprenticeship

Diploma

The Iowa Central Apprenticeship Program is designed to assist electrical contractors to get their employees licensed by the State of Iowa. Students interested in taking the apprenticeship program must be working for an electrical contractor who is registered with the State of Iowa, and the student is required to be working for a licensed Journeymen or Master electrician to clock 8000 hours of OJT. Once the Iowa Central Community College Electrical Apprenticeship coursework is completed, and the student has clocked 8000 hours of OJT, the student will be eligible to take the state electrical exam.

The electrical field has a lot to offer the right candidate. It is among the fastest growing technical fields. Success in this field of study is directly related to being able to apply theories and practical applications. They both draw upon mathematics, first aid/safety and the National Electric Code. Large and small businesses are in need of individuals who have gained knowledge through a demanding and precise program. This program is approved by the Department of Labor, meets the state of Iowa's licensure educational requirements and the courses are credited and can be applied to an AAS degree.

Iowa Central's Electrical Apprenticeship Program combines theory, lab work and employer provided work experience. The curriculum provides students with a broad knowledge base with targeted detail for understanding the National Code. OSHA 10 hour and CPR certification are earned upon completion of the program. Therefore, a student will be able to apply newly acquired knowledge in a relatively short period of time.

Program of Study:

First Semester		Sem. Hrs.
ELE-250+	Math for Electricians*	3
ELE-124	Tools/Adapters/Instrumentation	2
IND-110	CPR, First Aid and Safety	1
ELE-114	DC Fundamentals	3
ELE-104	Print Reading and Estimating	1
ELE-149	UL and Electrical Safety	2
	Total Hours	**12**
Second Semester		
ELE-111	AC Fundamentals	3
ELE-164	Residential Wiring	2
ELE-167	Industrial Electrical Systems	3
ELE-195	Motor Controls	3
	Total Hours	**11**
Third Semester		
ELE-155	National Electric Code I	2
IND-184	Mechanical Processes	2
ELE-198	Solid State Motor Controls	2
ELE-221	Instrumentation and Control	3
ELE-204	Programmable Logic Controllers	3
	Total Hours	**12**
Fourth Semester		
ELE-187	Advanced Industrial Electrical Systems	4
ELE-156	National Electrical Code II	2
ELE-158	National Electrical Code III	2
ELE-170	Power Distribution	2
	Total Hours	**10**
	Diploma Total Hours	**45**

**Course may be substituted with a course from the same category as indicated in the approved general education course list.*

+Course satisfies general education requirement.

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 45
Campus: Fort Dodge
Department: Industrial Technology
CIP#: 47.01050200

Electrical Technologies

Associate of Applied Sciences (AAS)

The Electrical Technologies program provides training essential for entry-level positions as residential electricians, plant maintenance electricians, and wind farm technicians. During the first year, students will develop a solid electrical foundation essential to the many fields of the electrical and electronics industry. The eight-week summer internship will provide relevant industry work experience to insure a classroom-to-work transition. The second year of the program will provide additional skills in motor controls, programmable controllers, motor fundamentals, industrial wiring, and conduit bending. Upon successful completion of the program, students are awarded an Associate in Applied Sciences Degree.

Program of Study:

		Sem. Hrs.
First Semester		
ELE-250+	Math for Electricians*	3
ELE-124	Tools/Adapters/Instrumentation	2
ELE-114	DC Fundamentals	3
ELE-111	AC Fundamentals	3
ELE-155	National Electric Code I	2
ELE-164	Residential Wiring	2
IND-314	Computer Maintenance Management System	1
IND-110	CPR, First Aid and Safety	1
	Total Hours	**17**
Second Semester		
CAD-401	Electrical CAD**	3
ELE-167	Industrial Electrical Systems	3
ELE-195	Motor Controls	3
ELE-170	Power Distribution	2
IND-184	Mechanical Processes	2
WEL-122	Beginning Welding	2
+	Humanities/Social Science Elective	3
	Total Hours	**18**
Required		
ELE-932	Electrical Technologies Internship	4
	Total Hours	**4**
Third Semester		
ELE-156	National Electrical Code II	2
PHY-184 +	Applied Physics~	4
ELE-198	Solid State Motor Controls	2
ELE-204	Programmable Logic Controllers	3
ELE-187	Advanced Industrial Electrical Systems	4
+	Communications Elective	3
	Total Hours	**18**
Fourth Semester		
ELE-221	Instrumentation and Control	3
IND-116	Pneumatic and Hydraulic Systems	2
ELE-149	UL and Electrical Safety	2
ELE-158	National Electrical Code III	2
ELE-205	Advanced Programmable Controllers	3
ELE-245	Integrated Motion Control and Robotics	4
ELE-104	Print Reading and Estimating	1
	Total Hours	**17**
	AAS Degree Total Hours	**74**
Optional		
IND-208	Industrial Pumps and Drives	2
BUS-113	Workplace Readiness	1.5

**Course may be substituted with a course from the same category as indicated in the approved general education course list.*

***Course may be substituted with CAD-101 Introduction to CAD with approval of the program coordinator.*

+Course satisfies general education requirement.

~Course may be substituted with a course from the approved general education course list.

Program Requirement: Must pass all core program courses with the prefix ELE with a "C" or better for the semester prior to the one in which they are currently enrolling with a "C" or better. Any exception will have to be approved in writing by the Program Coordinator or Division Dean.

Graduation Requirement: Must pass all core program courses with the prefix ELE with a "C" or better.

Because of changes in technology, students taking programs over an extended period of time may be advised to retake courses to update skills and competencies.

Enrollment Date: Fall Semester
Minimum Required Credits: 74
Campus: Fort Dodge
Department: Industrial Technology
CIP#: 47.01050200

Electrical/Mechanical Technician

Associate of Applied Sciences (AAS)

The Electrical/Mechanical Technician program was designed in response to industry needs. The program will provide training for entry-level positions working as a machine repairer, building and plant maintenance, and also as a plant maintenance electrician. Graduates will have a solid electrical foundation, and the skills to install, maintain, and troubleshoot the equipment utilized by today's industries. Upon completion of the program, graduates will be awarded an Associate of Applied Sciences degree.

Program of Study:

First Semester		**Sem. Hrs.**
ELE-250+	Math for Electricians*	3
ELE-124	Tools/Adapters/Instrumentation	2
ELE-114	DC Fundamentals	3
ELE-111	AC Fundamentals	3
ELE-155	National Electric Code I	2
ELE-164	Residential Wiring	2
IND-126	Precision Measurements Lab	1
IND-314	Computer Maintenance Management System	1
IND-110	CPR, First Aid and Safety	1
	Total Hours	**18**
Second Semester		
CAD-401	Electrical CAD**	3
ELE-167	Industrial Electrical Systems	3
ELE-195	Motor Controls	3
IND-208	Industrial Pumps and Drives	2
IND-116	Pneumatic and Hydraulic Systems	2
IND-127	Shop Operations	1
ELE-170	Power Distribution	2
WEL-122	Beginning Welding	2
	Total Hours	**18**
Required		
ELE-932	Electrical Technologies Internship	4
	Total Hours	**4**
Third Semester		
ELE-156	National Electrical Code II	2
MFG-256	Introduction to Lathe Operations	2
MFG-266	Introduction to Mill Operations	2
IND-128	Blueprint Reading	1
IND-184	Mechanical Processes	2
IND-185	Predictive and Preventative Maintenance	2
ELE-187	Advanced Industrial Electrical Systems	4
+	Communications Elective	3
	Total Hours	**18**
Fourth Semester		
ELE-149	UL and Electrical Safety	2
WEL-213	Fabrication, Layout, Estimating and Repair or	
WEL-214	Adv. Fabrication and Layout	2
WEL-340	Maintenance Welding	2
IND-183	Industrial Machine Maintenance	4
MFG-505	Lean Manufacturing	1
PHY-184+	Applied Physics~	4
+	Humanities/Social Science Elective*	3
	Total Hours	**18**
	AAS Degree Total Hours	**76**
Optional		
BUS-113	Workplace Readiness	1.5

**Course may be substituted with a course from the same category as indicated in the approved general education course list.*

***Course may be substituted with CAD-101 Introduction to CAD with approval of the program coordinator.*

+Course satisfies general education requirement.

~Course may be substituted with a course from the approved general education course list.

Program Requirement: Must pass all core program courses with the prefix ELE, IND with a "C" or better for the semester prior to the one in which they are currently enrolling with a "C" or better. Any exception will have to be approved in writing by the Program Coordinator or Division Dean.

Graduation Requirement: Must pass all core program courses with the prefix ELE, IND with a "C" or better.

Because of changes in technology, students taking programs over an extended period of time may be advised to retake courses to update skills and competencies.

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 76
Campus: Fort Dodge
Department: Industrial Technology
CIP#: 47.01050200

Emergency Medical Services

Certificate/Associate of Applied Science (AAS)

The Emergency Medical Services (EMS) program readies the student for a career in an exciting and expanding health care field. Graduates of the program are prepared to initiate and maintain treatment for medical, trauma, and cardiac emergencies following physician's orders or standard protocols. Successful completion of course requirements allows the students to take the National Registry examinations.

Student Responsibilities: Students receive clinical practice and field experience at a variety of health care settings. Transportation to the clinical site is the responsibility of the student. A medical health form and CPR certification must be completed prior to clinical. Successful completion of course requirements allows the student to take the National Registry examinations. All EMS students must complete a Criminal Record/Child and Adult Abuse check prior to attending clinical.

Admission Requirements: The following criteria is required for applicants in the Paramedic program: minimum of a high school diploma (GPA of 2.5) or equivalent (GED of 550) or HiSET 15, ACT score of 18 in reading, English, and 16 in math, Compass scores (writing 65, reading 80, (Placement Doman number of pre-algebra 34 or algebra 0), or ASSET scores of 40 in each category writing and reading and 38 in numeric. All health science students must complete a Criminal Record/Child and Adult Abuse Check prior to attending clinical.

Accreditation: The Iowa Central Community College Paramedic program, on the Fort Dodge campus, is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP). Commission on Accreditation of Allied Health Education Programs, 25400 US Highway 19 N., Suite 158, Clearwater, FL 33763, 727-210-2350, www.caahep.org. To contact CoAEMSP, 8301 Lakeview Parkway Suite 111-312, Rowlett, TX 75088, 214-703-8445, FAX 214-703-8992, www.coaemsp.org.

Program of Study - Paramedic Degree

Pre-requisites		Sem. Hours
EMS-200	EMT	8
BIO-168+	Human Anatomy and Physiology I	4
HSC-113+	Medical Terminology	2
	Total Hours	**14**
First Semester		
BIO-173+	Human Anatomy and Physiology II	4
EMS-760	NSC Paramedic I	9
	Total Hours	**13**
Second Semester		
ENG-105+	Composition I	3
EMS-761	NSC Paramedic II	9.5
EMS-810	Advanced Cardiac Life Support	1
	Total Hours	**13.5**
Summer Semester		
ENG-106+	Composition II	
	or	
SPC-112	Public Speaking	3
EMS-762+	NSC Paramedic III	6.5
	Total Hours	**9.5**
Third Semester		
PSY-111+	Introduction to Psychology	3
EMS-763	NSC Paramedic IV	9.5
EMS-815	Pediatric Advanced Life Support	1
	Total Hours	**13.5**
Fourth Semester		
EMS-764	NSC Paramedic V	8.5
EMS-820	Pre-hospital Trauma Life Support	1
	Social Sciences/Humanities Elective	3
	Total Hours	**12.5**

+Course satisfies general education requirement.

Graduation Requirement: Must pass all program courses with a "C" or better.

NSC = National Standard Curriculum

EMS Certificate Programs

EMT - CIP#5109042000

EMS-200	EMT	8
	Total Hours	**8**

Optional EMR Course

EMT - CIP#5109041000

EMS-113	Emergency Medical Responder	3.5

Enrollment Date: Fall Semester
Minimum Required Credits: 76
Campus: Fort Dodge
Department: Health Sciences
CIP#: 51.09046200

Engineering

Associate of Arts (AA)/Associate of Science (AS)

Engineering professionals employ mathematical and scientific principles to develop effective solutions to real-world, technical problems. Engineers design, develop and build machinery and complex systems used in the production of a large variety of consumer goods. Engineers are also instrumental in the development of buildings, interstate highways, and transportation systems.

They are also responsible developing systems and machinery for extracting and processing many raw materials used by societies worldwide. They develop alternative power sources for mankind and are involved in finding new ways to take advantage of and apply the latest technological advancements. Engineers are responsible for improving the quality of healthcare, ensuring the availability and safety of the food we eat and the integrity of critical operational, financial and computer systems that support society. Engineers are at the heart of everything important to the quality of human life.

Suggested Program of Study: AA Degree

First Semester		Sem. Hrs.
ENG-105	Composition I	3
MAT-210	Calculus I	4
MAT-180	Engineering Problems	2
CHM-165	General Chemistry I	4
CIS-162	C++	4
SDV-108	The College Experience	1
	Total Hours	**18**
Second Semester		
ENG-106	Composition II	3
MAT-216	Calculus II	4
CIS-153	Data Structures	4
	Humanities Elective	3
	Total Hours	**14**
Third Semester		
SPC-112	Public Speaking	3
PHY-212	Classical Physics I	5
PSY-111	Introduction to Psychology	3
POL-121	International Relations	3
	Humanities Elective	3
	Total Hours	**17**
Fourth Semester		
MAT-226	Differential Equations	3
PHY-222	Classical Physics II	5
MAT-219	Calculus III	4
ECN-130	Principles of Microeconomics	3
	Humanities Elective	3
	Total Hours	**18**

Suggested Program of Study: AS Degree

First Semester		Sem. Hrs.
ENG-105	Composition I	3
MAT-210	Calculus I	4
MAT-180	Engineering Problems	2
CHM-165	General Chemistry I	4
CIS-162	C++	4
SDV-108	The College Experience	1
	Total Hours	**18**
Second Semester		
ENG-106	Composition II	3
MAT-216	Calculus II	4
CIS-153	Data Structures	4
	Humanities Elective	3
	Total Hours	**14**
Third Semester		
SPC-112	Public Speaking	3
PHY-212	Classical Physics I	5
PSY-111	Introduction to Psychology	3
MAT-157	Statistics	4
	Total Hours	**15**
Fourth Semester		
MAT-226	Differential Equations	3
PHY-222	Classical Physics II	5
ECN-130	Principles of Microeconomics	3
MAT-219	Calculus III	4
	Total Hours	**15**

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 60
Campus: Fort Dodge, Storm Lake, and Webster City
Department: Math
CIP#: 24.01010200

Engineering & Design Technology

Diploma/Associate of Applied Science (AAS)

The Engineering & Design Technology program provides students with technical training needed to enter the various fields of computer aided drafting and design. The focus of the program is to give students experience in developing media to industry standards using computers. Included are drafting fundamentals & techniques, software applications, math and communication skills, and object representation using 2-D and 3-D principles. The diploma program is 38 weeks in length. Upon successful completion of the program, graduates will be awarded a diploma in Engineering & Design Technology. Students may continue to third and fourth semesters to complete an Associate of Applied Science degree.

Program of Study:

First Semester		Sem. Hrs.
MAT-743+	Technical Math*	3
CAD-101	Introduction to CAD	3
CAD-155	Engineering Graphics I	3
EGT-400	Introduction to Engineering and Design	3
IND-126	Precision Measurements Lab	1
WEL-122	Beginning Welding	2
IND-127	Shop Operations	1
	Total Hours	**16**
Second Semester		
MAT 748+	Technical Math II*	3
CAD-156	Engineering Graphics II	3
CAD-138	Virtual Modeling I	2
CAD-164	Solid Modeling I	2
EGT-410	Principles of Engineering	3
MFG-256	Introduction to Lathe Operations	2
MFG-266	Introduction to Mill Operations	2
	Total Hours	**17**
Summer Session		
CAD-157	Engineering Graphics III	3
CAD-166	Solid Modeling II	2
CAD-194	Architectural Modeling	2
	Total Hours	**7**
	Diploma Total Hours	**40**
Third Semester		
MAT-749	Technical Math III	4
CAD-217	Engineering Mechanics I	3
CAD-198	Applied Geometry and Technology	2
CAD-315	Computational Design	2
EGT-450	Computer Integrated Manufacturing	3
+	Communication Elective	3
	Total Hours	**17**
Fourth Semester		
CAD-218	Engineering Mechanics II	3
CAD-158	Engineering Graphics IV	2
CAD-232	Virtual Modeling II	2
CAD-275	Applied Logical Processes	2
WEL-213	Fabrication, Layout, and Estimating Repair	2
MFG-506	Quality Assurance	1
CAD-230	Geometric Dimensioning and Tolerancing	2
+	Humanities/Social Science Elective	3
	Total Hours	**17**
	AAS Degree Total Hours	**74**
Optional		
BUS-113	Workplace Readiness	1.5
IND-110	CPR, First Aid and OSHA	1

**Course may be substituted with a course from the same category as indicated in the approved general education course list.*

+Course satisfies general education requirement.

Program Requirement: Must pass all core program courses with the prefix CAD, EGT, MAT with a "C" or better for the semester prior to the one in which they are currently enrolling with a "C" or better. Any exception will have to be approved in writing by the Program Coordinator or Division Dean.

Graduation Requirement: Must pass all core program courses with the prefix CAD, EGT, MAT with a "C" or better.

Because of changes in technology, students taking programs over an extended period of time may be advised to retake courses to update skills and competencies.

Enrollment Date: Fall Semester
Minimum Required Credits: 40 (Diploma), 74 (AAS)
Campus: Fort Dodge
Department: Industrial Technology
CIP#: 15.00000200

English/Communication

Associate of Arts (AA)

The Language Arts Department offers a variety of classes in many different areas of study. Whether you are interested in advertising, writing, teaching, human resources, journalism, business, literature, or communications, a class suited to your needs is available here at Iowa Central.

We currently carry classes that deal with many issues surrounding the workplace, daily life, and social changes happening throughout the world. Within these classes decision making, critical thinking, comparison, and analysis are used to provide you with a greater understanding of the world in which we live.

The literature courses provide an avenue for understanding the history, and possible futures, of America and the world. By presenting imaginative writing styles such as short story, drama, poetry, and novel, and studying the great authors in all genres, we hope to expand your mind so you can accomplish anything you wish.

The Broadcasting department has long been known for its student run radio station, 88.1 KICB-FM. 88 1 The Point caters towards an audience between the ages of 13-34 with mainly Alternative music being broadcast. The lively atmosphere and immediate "on air" experience make this program bettered by none. You could also work on the college's award winning newspaper, The Collegian. The Collegian is a student-run publication allowing the students to be responsible for content, design, and production of the newspaper.

Suggested Program of Study for Literature:

First Semester		Sem. Hrs.
ENG-105	Composition I	3
LIT-101	Introduction to Literature	3
CSC-110	Introduction to Computers	3
MAT-111	Math for Liberal Arts	4
SDV-108	The College Experience	1
	Total Hours	**14**
Second Semester		
ENG-106	Composition II	3
LIT-114	American Literature	3
PSY-111	Introduction to Psychology	3
BIO-102	Introductory Biology	3
BIO-103	Introductory Biology Lab	1
	Social Science Elective	3
	Total Hours	**16**
Third Semester		
SPC-112	Public Speaking.	3
PSY-121	Developmental Psychology	3
SPC-122	Interpersonal Communication	3
PHI-145	Introduction to Ethical Conflicts	3
SPC-140	Oral Interpretation…….	3
	Total Hours	**15**
Fourth Semester		
ENG-221	Creative Writing	3
ANT-105	Cultural Anthropology	3
POL-111	American National Government	3
HUM-113	Exploring the Humanities	3
SPC-132	Group Communication	3
	Total Hours	**15**

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 60
Campus: Fort Dodge, Storm Lake, and Webster City
Department: Humanities
CIP#: 24.01010200

Exercise Science

Associate of Arts (AA)/Associate of Science (AS)

Sports medicine is the field of medicine concerned with injuries sustained in athletic endeavors, including their prevention, diagnosis and treatment. Exercise Science is the study of movement and the associated functional responses and adaptations. Many different disciplines comprise what is called sports medicine and exercise science.

Advising Information: Check with your transfer institution to verify what classes need to be taken prior to transferring as they may differ in different discipline areas. At Iowa Central, students should take a wide variety of general science courses including Human Anatomy and Physiology to better prepare for transfer into these programs.

Suggested Program of Study - AA Degree

First Semester		Sem. Hrs.
ENG-105	Composition I	3
MAT-127	College Algebra and Trigonometry	5
BIO-168	Human Anatomy & Physiology I	4
CHM-165	General Chemistry I	4
SDV-108	The College Experience	1
	Total Hours	**17**

Second Semester		
ENG-106	Composition II	3
PSY-111	Introduction to Psychology	3
BIO-173	Human Anatomy & Physiology II	4
CHM-175	General Chemistry II	4
	Humanities Elective	3
	Total Hours	**17**

Third Semester		
SPC-112	Public Speaking	3
CHM-261	Organic Chemistry I	4
SOC-110	Introduction to Sociology	3
	Humanities Elective	3
	Total Hours	**13**

Fourth Semester		
CHM-271	Organic Chemistry II	4
CSC-110	Introduction to Computers	3
	Humanities Elective	3
	Social Science Elective	3
	Total Hours	**13**

Program of Study - AS Degree

First Semester		Sem. Hrs.
ENG-105	Composition I	3
MAT-127	College Algebra and Trigonometry	5
BIO-168	Human Anatomy & Physiology I	4
CHM-165	General Chemistry I	4
SDV-108	The College Experience	1
	Total Hours	**17**

Second Semester		
ENG-106	Composition II	3
PSY-111	Introduction to Psychology	3
BIO-173	Human Anatomy & Physiology II	4
CHM-175	General Chemistry II	4
CSC-110	Introduction to Computers	3
	Total Hours	**17**

Third Semester		
SPC-112	Public Speaking	3
PHY-162	College Physics I	4
CHM-261	Organic Chemistry I	4
	Social Science Elective	3
	Total Hours	**14**

Fourth Semester		
PHY-172	College Physics II	4
CHM-271	Organic Chemistry II	4
MAT-157	Statistics	4
	Humanities Elective	3
	Total Hours	**15**

It is recommended that students take General Biology I and II, Contemporary Health Issues, College Physics I and II, and Statistics.

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 60
Campus: Fort Dodge
Department: Science
CIP#: 24.01010200

Fire Science

Associate of Applied Science (AAS)

The decision to work in public safety is a commendable and selfless sacrifice. It takes a special man or woman to take on the unique challenge of a career in public service and safety.

The Iowa Central Community College Fire Science program provides the knowledge, training and skills necessary for a rewarding career in Fire Fighting Field. The training our students receive can be beneficial to help students enter the field of Fire Fighting or if they are already in the field, the training is beneficial for career advancement. Students also have the opportunity to receive National Certification in Firefighter I & II, Driver Operator Pumper, and entry level Wildland Firefighter.

Associate in Applied Science in Fire Science
The Associate in Applied Science in Fire Science is a comprehensive two-year program designed to allow students to gain college credit hours for specific training that will help them enter the field of Fire Fighting. This program is rich in general education courses to facilitate pursuit of a baccalaureate degree and possesses the requisite technical and managerial courses to provide the foundation for leadership in the Fire Science Profession.

Program of Study:

First Semester		Sem. Hrs.
FIR-127	Fire Behavior and Combustion	3
FIR-144	Fundamentals of Fire Fighting	4.5
FIR-213	Principles of Emergency Services	3
ENG-105+	Composition I	3
+	Math Elective	3
	Total Hours	**16.5**
Second Semester		
FIR-124	Building Construction	3
FIR-200	Occupational Safety/Health in Emer Serv	3
FIR-221	Fire Prevention	3
PSY-111+	Introduction to Psychology	3
*CRJ-XXX		3
	Total Hours	**15**
Third Semester		
FIR-214	Legal Aspects of the Emergency Services	3
FIR-235	Fire Investigation I	3
FIR-226	Fire Administration	3
FIR-400	Fire & Emergency Services Safety & Survival	3
*CRJ-XXX		3
	Total Hours	**15**
Fourth Semester		
FIR-145	Fire Strategies and Tactics	3
FIR-149	Fire Protection Hydraulics & Water	3
FIR-152	Fire Protection Systems	3
FIR-236	Fire Investigation II	3
SPC-112+	Public Speaking	3
	Total Hours	**15**

**Must take 2 of 3, CRJ-132, CRJ-141, CRJ-160, CRJ-206, and CRJ-300 OR EMS-200 EMT (8 credits)*

+Course satisfies general education requirement.

Program Requirements: Students must earn a grade of a "C" or better in all Fire Science program of study courses and meet the necessary prerequisites to progress in the program. Students are required to complete National Background check and State Adult & Child Abuse check.

Enrollment Date: Fall Semester
Minimum Required Credits: 61.5
Campus: Fort Dodge
Department: Business
CIP#: 43.02030200

Geography

Associate of Arts (AA)

Geography is defined by its concern with place, striving to answer spatial questions regarding the earth's surface. Geography also describes and explains the character of regions; ascertains the ways in which historical and contemporary humans have used and shaped the earth's surface; and assists to understand the interactions of physical, biotic, and human systems within our global environment. Students of geography find that they develop insights and methods of inquiry that are particularly applicable to understanding many of the complex problems confronting societies.

Suggested Program of Study:

First Semester		Sem. Hrs.
ENG-105	Composition I	3
MAT-111	Math for Liberal Arts	4
GEO-121	World Regional Geography	3
ANT-105	Cultural Anthropology	3
SDV-108	The College Experience	1
	Total Hours	**14**
Second Semester		
ENG-106	Composition II	3
POL-111	American National Government	3
REL-105	Introduction to Religion	3
ECN-120	Principles of Macroeconomics	3
PSY-111	Introduction to Psychology	3
	Total Hours	**15**
Third Semester		
SPC-112	Public Speaking	3
POL-121	International Relations	3
ECN-130	Principles of Microeconomics	3
SOC-115	Social Problems	3
	Cultural Studies Elective	3
	Total Hours	**15**
Fourth Semester		
BIO-102	Introductory Biology	3
BIO-103	Introductory Biology Lab	1
POL-112	American State and Local Government	3
SOC-110	Introduction to Sociology	3
CSC-110	Introduction to Computers	3
	Cultural Studies Elective	3
	Total Hours	**16**

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 60
Campus: Fort Dodge, Storm Lake, and Webster City
Department: Social Science
CIP#: 24.01010200

Graphics Technology

Diploma/Associate of Applied Science (AAS)

The Graphics Technology Program combines the most essential skills from desktop publishing and graphic design to prepare students for a career in one of the top six fastest growing careers in the nation. Through hands-on projects, students will study and apply the techniques and tools it takes to create powerful and intelligent visual communications. Students build skill in developing the images used in a variety of creative projects including brochures, posters and advertisements as well as the skill for design, layout, and formatting of these materials. Students build a strong foundation for a career by learning design techniques, visual thinking, and typography through applied learning.

Program of Study:

First Semester		Sem. Hrs.
CIS-256	Dreamweaver I	3
CIS-265	Photoshop 1	3
CIS-254	Basic Multimedia Design	2
GRA-111	Vector Graphic I	2
GRA-176	Layout Design I	3
ART-115	Graphic Design	3
	Total Hours	**16**
Second Semester		
CIS-266	Photoshop 2	3
GRA-115	Vector Graphic II	2
GRA-177	Layout Design II	3
CIS-299	WordPress	3
ART-151	Design I	3
ADM-258	Professional Development	1
+	Social Science/Humanities Elective	3
	Total Hours	**18**
	Diploma Total Hours	**34**

Students can graduate with a diploma in Graphics Technology after successful completion of first and second semester. Students can continue to third and fourth semesters to complete an Associate of Applied Science Degree (AAS).

Third Semester		
CIS-277	Portfolio 1	3
CIS-194	Layout Design III	3
MKT-110+	Principles of Marketing	3
BUS-112+	Business Mathematics*	3
ENG-105+	Composition I	3
	Total Hours	**15**
Fourth Semester		
CIS-278	Portfolio 2	3
CIS-195	Layout Design Projects	3
SMM-170	Social Media Campaigns	3
ART-184	Photography	3
+	English/Speech Elective	3
	Total Hours	**15**
Summer Semester	**(Required)**	
BUS-932	Internship	2
	AAS Degree Total Hours	**66**

**Course may be substituted with a course from the same category as indicated in the approved general education course list.*

+Course satisfies general education requirement.

Graduation Requirement: Must pass all core program courses with the prefix ART, CIS, GRA with a "C" or better.

Enrollment Date: Fall Semester
Minimum Required Credits: 34 (Diploma), 66 (AAS)
Campus: Fort Dodge
Department: Business
CIP#: 10.03030200

Health & Beauty Management

Associate of Applied Science (AAS)

The Health and Beauty Management program will provide students with a comprehensive program to prepare them for professions in the health and beauty fields. By incorporating college level business courses along with the courses required to prepare students to pass the state board exams, this degree will give the students opportunities to progress further within their field and give them the essential skills that will help them be successful as self employed cosmetologists. Iowa Central Community College and La James International Colleges have formed a partnership for the delivery of this program that combines licensure with an associate in applied science degree component.

Program of Study:

Courses that will be taught during the Diploma in Cosmetology at LaJames International College:

- Theory of Applied Art
- Design Decisions
- Applied Principles
- Career Essentials
- Core Life Sciences
- Salon Tech/Practicum

Iowa Central Courses Required for Graduation

BUS-121+	Business Communication*	3
BUS-112+	Business Mathematics*	3
MGT-101	Principles of Management	3
BUS-161+	Human Relations*	3
MKT-110+	Principles of Marketing	3
BUS-130	Introduction to Entrepreneurship	3
	Total Hours	**18**

**Course may be substituted with a related course from the approved general education course list.*

+Course satisfies general education requirement.

Program Graduation Requirements:
To graduate with an AAS in Health and Beauty Management from Iowa Central Community College a student must complete the following:

1. *Student must have graduated from La James International College with a diploma in either:*
   a) Cosmetology, or
   b) Massage Therapy and Esthetics
   A copy of the La James transcript must be sent to Iowa Central Community College
2. *Student must hold a current state license from Iowa or Nebraska in either:*
   a) Cosmetology, or
   b) Massage Therapy and Esthetics
   A copy of the state license must be sent to Iowa Central Community College
3. *Student must complete the 18 credits required by Iowa Central Community College*

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 18 + LaJames transcript and active license
Campus: Fort Dodge and Flexnet
Department: Business
CIP#: 12.04010200

Health Care Administration

Associate of Professional Studies (APS)

The Health Care Administration program will provide graduates with an Associate of Professional Studies degree. The purpose of the program is to prepare students entering and those currently in health care related careers with expanded opportunities within the health care profession. The program will include the following topics: the health care system in the U.S., legal and ethical issues dealing with health care, economics and how it affects health care, professional opportunities related to health care, informational technology used in health care and general principles of the financial aspects of health care. This program is not designed to prepare students to be a Long Term Care Administrator. This program is only offered in the 8-week online program.

Program of Study:

First Semester		Sem. Hrs.
SDV-108+	College Experience or	
SDV-118+	Online College Experience	1
ENG-105+	Composition 1	3
HCA-151	Overview of Health Care	3
ECN-120+	Principles of Macroeconomics or	
ECN-130+	Principles of Microeconomics	3
CSC-110	Introduction to Computers	3
PHI-145	Introduction to Ethical Conflicts*	3
	Total Hours	**16**
Second Semester		
HSC-113	Medical Terminology	2
PSY-111+	Introduction to Psychology	3
ENG-106+	Composition 2	3
HCA-153	Career Opportunities in Health Care	3
HCA-155	Technology and Health Care	3
SOC-130	Introduction to Gerontology	3
	Total Hours	**17**
Third Semester		
SPC-112+	Public Speaking	3
MGT-101	Principles of Management	3
HCA-157+	Health Care and Economics	3
ACC-142	Financial Accounting	3
+	Math Elective	3
	Total Hours	**15**
Fourth Semester		
HCA-159	Financial Matters for Health Care	3
HCA-161	Legal Issues in Health Care	3
ACC-146	Managerial Accounting	3
+	Science Elective	3
+	Distributed Elective	3
+	Distributed Elective	3
	Total Hours	**18**
	APS Degree Total Hours	**66**

**Course may be substituted with a course from the same category as indicated on the Associate of Professional Studies Degree sheet.*

+Course satisfies general education requirement.

Graduation Requirement: Must pass all core program courses with the prefix HCA with a "C" or better.

Enrollment Date: Varies
Minimum Required Credits: 66
Campus: Online Only
Department: Health Science
CIP#: 51.07010200
ITSO: 03 11 11 03

Heating and Air Conditioning Technology

Associate of Applied Science (AAS)

The HVAC Technology/Technician program will concentrate on heating, air conditioning, ventilation and refrigeration systems that control the air quality in many types of buildings that control the temperature, humidity, and overall air quality in homes, businesses, and other buildings. This program prepares students for entry into the following occupations: commercial heating/air conditioning controls technician; commercial heating/air conditioning service technician; heating/air conditioning lab technician; heating/air conditioning sales engineer, heating/air conditioning parts manager; and manufacturer's field service representative.

Program of Study:

First Semester		Sem. Hrs.
MAT-743+	Technical Math*	3
HCR-102	Introduction to HVAC-R	3
HCR-104	HVAC-R Tools and Terminology	2
ELE-111	AC Fundamentals	3
ELE-114	DC Fundamentals	3
IND-127	Shop Operations	1
IND-110	CPR, First Aid and Safety	1
	Total Hours	**16**
Second Semester		
HCR-303	Refrigeration Fundamentals	1
HCR-210	Residential Air Conditioning Systems	4
HCR-145	Intro to Heating Systems	3
ELE-195	Motor Controls	3
IND-184	Mechanical Processes	2
WEL-122	Beginning Welding	2
+	Humanities/Social Science Elective	3
	Total Hours	**18**
(required)		
HCR-932	Internship	4
Third Semester		
HCR-505	Air Distribution	3
HCR-245	Troubleshooting Air Conditioning Systems	2
HCR-255	Troubleshooting Heating Systems	2
HCR-350	Mechanical Code I	2
HCR-717	Blueprint Reading	3
+	Communications Elective	3
	Total Hours	15
Fourth Semester		
PHY-184+	Applied Physics~	4
HCR-355	Mechanical Code II	2
HCR-135	Hydronics	2
HCR-445	HVAC System Design	2
HCR-170	Refrigeration and Small Appliances	2
IND-208	Industrial Pumps and Drives	2
+	General Education Elective	3
	Total Hours	**17**
	AAS Degree Total Hours	**70**
Optional Classes		
CAD-138	Virtual Modeling I	2
IND-116	Pneumatic and Hydraulic Systems	2
IND-183	Industrial Machine Maintenance	4
BUS-113	Workplace Readiness	1.5

**Course may be substituted with a course from the same category as indicated in the approved general education course list.*

+Course satisfies general education requirement.

~Course may be substituted with a course from the approved general education course list.

Program Requirement: Must pass all core program courses with the prefix HCR with a "C" or better for the semester prior to the one in which they are currently enrolling with a "C" or better. Any exception will have to be approved in writing by the Program Coordinator or Division Dean.

Graduation Requirement: Must pass all core program courses with the prefix HCR with a "C" or better.

Because of changes in technology, students taking programs over an extended period of time may be advised to retake courses to update skills and competencies.

Enrollment Date: Fall Semester
Minimum Required Credits: 70
Campus: Fort Dodge
Department: Industrial Technology
CIP#: 15.00000200

History

Associate of Arts (AA)

A study in History is designed to prepare students for a major in History at a senior institution. The study of the discipline provides a broad perspective of historical issues, methods of historical study, and research techniques. Skills of analysis also provide a means to study related areas in the general Social Sciences.

Suggested Program of Study:

First Semester		Sem. Hrs.
ENG-105	Composition I	3
HIS-151	U.S. History to 1877	3
PSY-111	Introduction to Psychology	3
HIS-112	Western Civ: Ancient to Early Mod	4
SDV-108	The College Experience	1
	Total Hours	**14**
Second Semester		
ENG-106	Composition II	3
POL-111	American National Government	3
HIS-152	U.S. History Since 1877	3
MAT-157	Statistics	4
HIS-113	Western Civilization: Early Mod to Present	4
	Total Hours	**17**
Third Semester		
SPC-112	Public Speaking	3
POL-121	International Relations	3
CSC-110	Introduction to Computers	3
HIS-251	U.S. History 1945 to Present	3
ANT-105	Cultural Anthropology	3
	Total Hours	**15**
Fourth Semester		
REL-105	Introduction to Religion	3
BIO-102	Introductory Biology	3
BIO-103	Introductory Biology Lab	1
GEO-121	World Regional Geography	3
	Cultural Studies Elective	3
	Cultural Studies Elective	3
	Total Hours	**16**

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 60
Campus: Fort Dodge, Storm Lake, and Webster City
Department: Social Science
CIP#: 24.01010200

Human Services

Associate of Arts (AA)/Associate of Professional Studies (APS)

The Human Services program prepares the student for a helping career in the human services field. The goal of this program is to prepare the student for their future employment as a human services generalist. Students who study human services typically should enjoy working with people. They are passionate about the potential for human growth and change. The students feel a commitment to improve the overall quality of people's lives. Their interests may also include advocating for social justice.

The Human Services Program provides a core course foundation that expands the student's basic knowledge and skills. The student will complete additional classes in psychology and sociology that allow them to focus and pursue their own special interests. Additional class work will include studies in substance abuse, victim advocacy, disability services, working with youth, families, and the elderly. Counseling courses develop the students' abilities to interview and assist clients in making changes in their lives. A field practicum placement allows the students to explore a human services career with a hands-on experience at a community human services agency setting.

Program of Study: AA Degree

First Semester		Sem. Hrs.
ENG-105	Composition I	3
SOC-110	Introduction to Sociology	3
PSY-111	Introduction to Psychology	3
SOC-150	Introduction to Human Services	3
REL-105	Introduction to Religion	3
SDV-108	The College Experience	1
	Total Hours	**16**
Second Semester		
MAT-111	Math for Liberal Arts	4
ENG-106	Composition II	3
SOC-115	Social Problems	3
CSC-110	Introduction to Computers	3
	Total Hours	**13**
Third Semester		
HSV-220	Introduction to Counseling	3
SPC-112	Public Speaking	3
PSY-121	Developmental Psychology	3
POL-111	American National Government	3
BIO-102	Introductory Biology	3
BIO-103	Introductory Biology Lab	1
	Total Hours	**16**
Fourth Semester		
HUM-113	Exploring the Humanities	3
SOC-200	Minority Group Relations	3
SOC-120	Marriage & Family	3
PSY-251	Social Psychology	3
	Humanities Elective	3
	Total Hours	**15**

Program of Study: APS Degree

First Semester		Sem. Hrs.
ENG-105+	Composition I	3
SOC-110	Introduction to Sociology	3
SDV-108+	The College Experience	1
PSY-111+	Introduction to Psychology	3
CSC-110+	Introduction to Computers	3
SOC-150	Introduction to Human Services	3
	Total Hours	**16**
Second Semester		
HSV-162	Introduction to Disability Services	3
ENG-106+	Composition II	3
+	Human Services Elective*	3
+	Math Elective	3
+	Distributed Elective	3
	Total Hours	**15**
Third Semester		
HSV-220	Intro to Counseling	3
SOC-140	Human Behavior in Social Environment.	3
POL-111	American National Government	3
	Human Services Elective	3
+	Science Elective	3
	Total Hours	**15**
Fourth Semester		
HSV-180	Ethics for Human Services	1
SPC-112+	Public Speaking	3
	Human Services Elective*	3
	Human Services Elective*	3
+	Humanities Elective	3
+	Distributive Elective	3
	Total Hours	**16**
Summer Session		
HSV-850	Human Services Field Experience	2
+	Distributed Elective	3
	Total Hours	**5**
	APS Degree Total Hours	**67**

**Human Services electives may be offered only one semester per year. Some are available through FlexNet. Below are the semester's the face to face courses are held.*

Fall Only:
HSV-220 Intro to Counseling
HSV-135 Women's Issues
PSY-222 Child Psychology
SOC-150 Intro to Human Services
PSY-251 Social Psychology
SOC-115 Social Problems
SOC-200 Minority Group Relations

Spring Only:
SOC-140 Human Beh in Social Env.
HSV-229 Group Facilitation
HSV-255 Addictive Disease & Concept
HSV-276 Social Justice & Advocacy
PSY-241 Abnormal Psychology
SOC-120 Intro to Gerontology
HSV-285 Case Management

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 67
Campus: Fort Dodge, Storm Lake, and Webster City
Department: Social Science
CIP#: 24.01010200 (AA), 44.07010200 (APS)

Industrial Business

Associate of Applied Science (AAS)

The Industrial Business Degree Program is a one-year program tht will help students develop additional business and communication skills essential for management and supervision in the technical fields. It is a second-year option to one-year diploma programs, and students will earn an AAS degree upon completion.

The Industrial Business Degree program can be used in addition to the following one-year diploma programs -

Baking & Pastry Arts
Carpentry
Engineering & Design Technology
Industrial Mechanics
Welding

Program of Study:

First Semester		**Sem. Hrs.**
CSC-110+	Introduction to Computers	3
BUS-102	Introduction to Business	3
MKT-110+	Principles of Marketing	3
	Business or Industrial Technology Electives**	6
	Total Hours	**15**
Second Semester		
ACC111	Introduction to Accounting	3
+	Communications Elective	3
+	Humanities or Social Science Elective	3
	Business or Industrial Technology Electives**	6
	Total Hours	**15**
	AAS Degree Minimum Total Hours	**63.5**

**Course may be substituted with a course from the same category as indicated in the approved general education course list.*

*** Credits in addition to the diploma program*

+Course satisfies general education requirement.

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 60
Campus: Fort Dodge
Department: Industrial Technology
CIP#: 30.99991200

Industrial Mechanics

Diploma

The Industrial Mechanics Program provides training essential for entry-level positions as a machine repairer, or building and plant maintenance technician. The program will provide basic skills in welding, fabrication, pneumatics & hydraulics, blueprint reading, lean manufacturing, and predictive and preventive maintenance. Students will utilize hands-on training to install, maintain and troubleshoot the equipment currently utilized by today's industries. Upon completion of the program, the graduates will be awarded a Diploma in Industrial Mechanics. All courses taken will also satisfy some of the requirements for other Industrial Technology Associate Degree programs.

Program of Study:

First Semester		**Sem. Hrs.**
ELE-114	DC Fundamentals	3
MAT-743+	Technical Math*	3
IND-126	Precision Measurements Lab	1
IND-127	Shop Operations	1
IND-128	Blueprint Reading	1
IND-184	Mechanical Processes	2
IND-185	Predictive and Preventative Maintenance	2
MFG-256	Introduction to Lathe Operations	2
WEL-122	Beginning Welding	2
	Total Hours	**17**
Second Semester		
WEL-213	Fabrication, Layout, Estimating and Repair	
	or	
WEL-214	Adv. Fabrication and Layout	2
WEL-340	Maintenance Welding	2
IND-208	Industrial Pumps and Drives	2
IND-110	CPR, First Aid and Safety	1
IND-116	Pneumatic and Hydraulic Systems	2
IND-183	Industrial Machine Maintenance	4
IND-314	Computer Maintenance Management System	1
MFG-266	Introduction to Mill Operations	2
MFG-505	Lean Manufacturing	1
	Total Hours	**17**
	Diploma Total Hours	**34**
Optional		
IND-932	Internship	4
MFG-257	Advanced Lathe	2
MFG-238	Machine Processes	2
BUS-114	Workplace Communications	3
BUS-113	Workplace Readiness	1.5

**Course may be substituted with a course from the same category as indicated in the approved general education course list.*

+Course satisfies general education requirement.

Program Requirement: Must pass all core program courses with the prefix IND, MFA, ELE with a "C" or better for the semester prior to the one in which they are currently enrolling with a "C" or better. Any exception will have to be approved in writing by the Program Coordinator or Division Dean.

Graduation Requirement: Must pass all core program courses with the prefix IND, MFA, ELE with a "C" or better.

Because of changes in technology, students taking programs over an extended period of time may be advised to retake courses to update skills and competencies.

Enrollment Date: Fall Semester
Minimum Required Credits: 34
Campus: Fort Dodge
Department: Industrial Technology
CIP#: 47.03030100

Industrial Robotics and Automation

Associate of Applied Science (AAS)

The Industrial Robotics and Automation program will provide students training in an industrial setting in topics such as assembling, installation, programming, troubleshooting, maintaining and operating industrial robotic systems. Students will develop skills in industrial controls, programming, vision systems, fluid power, multi axis motion control, and automation integration. Upon successful completion, students are awarded an Associate of Applied Sciences Degree.

Program of Study:

First Semester		Sem. Hrs.
ELE-250+	Math for Electricians*	3
NET-110+	Microcomputer Fundamentals~	3
ELE-114	DC Fundamentals	3
ELE-111	AC Fundamentals	3
ELE-164	Residential Wiring	2
ATR-253	Robotic Programming	3
	Total Hours	**17**
Second Semester		
CAD-401	Electrical CAD	3
ELE-167	Industrial Electrical Systems	3
ELE-195	Motor Controls	3
ELE-170	Power Distribution	2
IND-184	Mechanical Processes	2
EGT-450	Computer Integrated Manufacturing	3
	Total Hours	**16**
Summer Semester		
ELE-932	Electrical Technologies Internship	4
	Total Hours	**4**
Third Semester		
ELE-204	Programmable Logic Controllers	3
ELE-187	Advanced Industrial Electrical Systems	4
ELE-155	National Electric Code I	2
ELE-198	Solid State Motor Controls	2
ATR-270	Vision Systems	2
+	Communications Elective	3
	Total Hours	**16**
Fourth Semester		
IND-116	Pneumatic and Hydraulic Systems	2
ELE-205	Advanced Programmable Controllers	3
ELE-221	Instrumentation and Control	3
ELE-245	Integrated Motion Control and Robotics	4
ATR-265	Robotics and Automation	3
+	Humanities/Social Science Elective	3
	Total Hours	**18**
	AAS Degree Total Hours	**71**
Optional		
BUS-113	Workplace Readiness	1.5
EGT-400	Introduction to Engineering & Design	3
NET-138	Introduction to Networks	3
WEL-122	Beginning Welding	2
WEL-710	Robotic Welding	3
IND-106	Industrial Pumps and Drives	2
IND-110	CPR, First Aid and Safety	1
IND-127	Shop Operations	1
IND-185	Predictive Preventative Maintenance	2
IND-314	Computer Maintenance Management System	1

**Course may be substituted with a course from the same category as indicated in the approved general education course list.*

+Course satisfies general education requirement.

~Course may be substituted with a course from the approved general education course list.

Enrollment Date: Fall Semester
Minimum Required Credits: 71
Campus: Fort Dodge
Department: Industrial Technology
CIP#: 15.04050200

Journalism

Associate of Arts (AA)

Journalism majors at Iowa Central are presented with an opportunity for a well-rounded education and the opportunity to learn in a hands-on environment about the many types of journalistic assignments including digital and social media, investigative journalism, sports journalism, public relations, and traditional media journalism, all while completing their general education requirements.

Journalism majors will receive an education with a foundation in a basic liberal arts format with an emphasis on writing, as well as critical and analytical thinking skills. Iowa Central also offers a variety of classes pertaining to many issues surrounding the workplace, daily life, and social changes happening throughout the world. Within these classes decision making, critical thinking, comparison, and analysis are used to provide you with a greater understanding of the world in which we live. The literature courses provide an avenue for understanding the history, and possible futures, of America and the world. By presenting imaginative writing styles such as short story, drama, poetry, and novel, and studying the great authors in all genres, we hope to expand your mind so you can accomplish anything you wish.

All journalism majors can participate in The Collegian, Iowa Central's student-run newspaper that is published 16 times throughout the school year. Participating students are responsible for content, design, and production of the newspaper.

Suggested Program of Study:

First Semester		Sem. Hrs.
ENG-105	Composition I	3
JOU-121	Newswriting and Reporting	3
COM-150	Mass Communications & Society	3
MAT-111	Math for Liberal Arts	4
SDV-108	The College Experience	1
	Total Hours	**14**
Second Semester		
ENG-106	Composition II	3
BIO-102	Introductory Biology	3
BIO-103	Introductory Biology Lab	1
MMS-241	Public Relations & Marketing	3
COM-142	Mass Media Writing	3
SOC-110	Introduction to Sociology	3
	Total Hours	**16**
Third Semester		
SPC-112	Public Speaking.	3
REL-105	Introduction to Religion	3
LIT-101	Introduction to Literature	3
CSC-110	Introduction to Computers	3
JOU-210	Media Law & Ethics	3
	Total Hours	**15**
Fourth Semester		
ENG-221	Creative Writing	3
PSY-111	Introduction to Psychology	3
POL-111	American National Government	3
PHI-145	Introduction to Ethical Conflicts	3
	Distributed Elective	3
	Total Hours	**15**

Students may also enroll in Newspaper Production (COM-157) for elective credit.

Enrollment Date: Fall Semester
Minimum Required Credits:
Campus: Fort Dodge
Department: Humanities
CIP#: 24.01010200

Mathematics

Associate of Arts (AA)

For people who appreciate logical thinking, intriguing patterns and complex relationships, mathematics is a beautiful subject. It has been said that mathematics is not so much a body of knowledge as it is a method for expanding our knowledge of the world around us. Obtaining a solid mathematical background at Iowa Central can open the door to this fascinating world in which exciting new fields such as fractal geometry, chaotic systems and artificial intelligence await you.

Graphing calculators are also used extensively in math classes at Iowa Central. Students are expected to have their own graphing calculators in pre-calculus, calculus, and differential equations classes and are encouraged to use them in several other math classes.

Suggested Program of Study:

First Semester		**Sem. Hrs.**
ENG-105	Composition I	3
CIS-162	C++	4
MAT-210	Calculus I	4
CSC-110	Introduction to Computers	3
SDV-108	The College Experience	1
	Total Hours	**15**
Second Semester		
ENG-106	Composition II	3
CIS-604	Visual Basic	3
MAT-216	Calculus II	4
	Social Science Elective	3
	Humanities Elective	3
	Total Hours	**16**
Third Semester		
SPC-112	Public Speaking	3
MAT-157	Statistics	4
	Science Elective	4
	Social Science Elective	3
	Humanities Elective	3
	Total Hours	**17**
Fourth Semester		
MAT-158	Statistics II	3
MAT-219	Calculus III	4
MAT-226	Differential Equations with Laplace	3
	Social Science Elective	3
	Humanities Elective	3
	Total Hours	**16**

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 60
Campus: Fort Dodge, Storm Lake, and Webster City
Department: Math
CIP#: 24.01010200

Medical Assistant

Diploma/Associate of Applied Science (AAS)

Medical assistants work alongside physicians,mainly in outpatient or ambulatory care facilities, such as medical offices and clinics. Employers are seeking medical assistants because they are the only allied health professional trained to perform both administrative and clinical duties. The majority of medical assistants work full-time with benefits. Medical assistants usually work weekdays during normal business hours when physician's offices are open to see patients.

The Medical Assistant Program at Iowa Central Community College prepares the student with theory and entry-level competence in the per-formance of administrative and clinical duties. The diploma program includes two semesters of theory and lab, followed by a 30 day summer practicum. The program begins in the fall and concludes in the summer. Students must earn a passing grade (as outlined in individual course syllabi) in all Medical Assistant curriculum courses and meet the prerequisites to progress in the program. Upon successful completion of all program requirements, the graduate is eligible to make application to take the CMA (AAMA) Certification Examination. Students may opt to continue their education to obtain an AAS degree in Medical Assisting, completing an addition 13 credit hours of required coursework and 6 credit hours of elective coursework beyond the diploma requirements.

Program Mission Statement: The Iowa Central Community College Medical Assistant Program is committed to meeting the educational needs of students preparing for a career as a medical assistant. Program graduates become competent medical assistants who are able to meet the expectations of area health care providers and employers and contribute to the health and well-being of their patients and the communities within which they live and work.

Student Responsibilities: The following additional requirements will be discussed with accepted students at Medical Assistant Program Orientation: Pre-Entrance Medical Record, Criminal Background Search, Iowa Child/Dependent Adult Abuse Search, Provider Level CPR and First Aid Certification (obtained through The American Red Cross, The American Heart Association, The American Safety and Health Institute, or The National Safety Institute), Mandatory Reporter Child/Dependent Adult training and certification, HIPAA training and certification, and Bloodborne Pathogens training and certification**.**

Accreditation: The Iowa Central Community College Medical Assistant Diploma Program on the Fort Dodge campus is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), 25400 U.S. Highway 19 North, Suite 158, Clearwater, Florida 33763, (727) 210-2350, www.caahep.org, upon the recommendation of the Medical Assisting Education Review Board (MAERB), 20 North Wacker Drive, Suite 1575, Chicago, Illinois 60606 (800) 228-2262, www.maerb.org.

Admission Requirements: The following criteria is required for admission: Minimum of a high school diploma (GPA ≥ 2.5), GED (score ≥ 550), or 8 hours of college credit (GPA ≥ 2.0); ACT scores ≥ 18 in each category (writing and reading), COMPASS scores (writing ≥ 65 and reading ≥ 80), or ASSET scores of ≥ 40 in each category (writing and reading); previous college credit, if applicable (GPA ≥ 2.0 or HiSET 15). Early application to the program is encouraged. Twenty five students are accepted each fall. The Program Coordinator grants acceptance to the first 25 students that meet the above admission criteria. Applicants may not begin the program until ALL of the admission criteria have been completed.

Program of Study - Medical Assistant Diploma CIP#5108010100

First Semester		Sem.Hrs.
MAP-542	The Human Body in Health & Disease I	3
MAP-322	Examination Room Techniques I	3.5
MAP-221	Medical Laboratory Procedures I	1.5
MAP-115	Medical Office Management I	6
HSC-113+	Medical Terminology	2
MAP-435	Interpersonal Relations in Health Care	2
	Total Hours	**18**

Second Semester		
MAP-555	The Human Body in Health & Disease II	5
MAP-325	Examination Room Techniques II	5.5
MAP-226	Medical Laboratory Procedures II	1.5
MAP-120	Medical Office Management II	6
	Total Hours	**18**

Summer Session (8 wks.)		
MAP-610	Practicum	3.5
ENG-105+	Composition I	3
	Total Hours	**6.5**

AAS Degree Option ..... CIP#5108010200

After completion of the diploma program, students may opt to continue their education to obtain an AAS degree in Medical Assisting, completing an additional 13 credit hours of required coursework and 6 credit hours of elective coursework (listed below).

		Sem.Hrs.
PSY-111	Introduction to Psychology	3
PSY-121	Developmental Psychology	3
ENG-106	Composition II	3
BIO-168	Human Anatomy and Physiology I	4

Elective courses that will be accepted include courses listed on the approved general education course list, or other relevant courses that receive prior approval from the Program Coordinator.

+Course satisfies general education requirement.

Graduation Requirement: Must pass all program courses with a "C" or better.

The Medical Assistant Diploma Program may be completed over two years with an individual curriculum plan as determined by the student and Program Coordinator.

The following courses may be taken during the first year: MAP-542, MAP-555, HSC-113, and ENG-105.

Enrollment Date: Fall Semester
Minimum Required Credits: 42.5 (Diploma), 61.5 (AAS)
Campus: Fort Dodge
Department: Health Science
CIP#: 51.08010100

Medical Laboratory Technician

Associate of Applied Science (AAS)

The Medical Laboratory Technician (MLT) program prepares the student to perform a full range of laboratory tests – from a simple blood glucose test to complex tests to uncover diseases such as HIV and cancer. Medical Laboratory Technicians must work quickly and accurately. The information they give to the doctors influences the medical treatment a patient receives. In their search for data on a patient's health, MLTs obtain blood samples from patients of all ages. They analyze blood, urine and other body fluids using a microscope or other complex precision instruments.

Program Mission Statement: The Medical Laboratory Technician Program (MLT) provides a learning environment conducive to preparing students to function at entry level laboratory careers.

Student Responsibilities: Students receive clinical practice at a clinical site determined by the MLT Coordinator. All MLT students must complete a Medical Health form and a Criminal Record/Child and Adult Abuse Check prior to attending clinical. Students must begin the hepatitis immunization series during their enrollment in Fundamentals of Laboratory Science. Transportation to the clinical site is the responsibility of the student. Graduates of the program are eligible to take the MLT Board of Certification Exam (BOC) administered by the American Society of Clinical Pathologists (ASCP). Granting of the AAS degree is not contingent on students passing any external examination or certification.

Accreditation: The Medical Laboratory Technician Program is accredited by the NAACLS, National Accrediting Agency for Clinical Laboratory Science, 5600 N. River Rd., Suite 720, Rosemont, IL 60018, 773-714-8880, 773-714-8886 (fax).

Admission Requirements: Successful completion of high school Biology and Algebra or equivalent is required. Required courses must be taken prior to entering the program. (High School chemistry is highly recommended). Chemistry may be taken the first semester in the MLT program. The following criteria is required for applicants: minimum of a high school diploma (GPA 2.5) or equivalent (GED 550) or HiSET 15, ACT scores of 18 in reading, English, and math; COMPASS scores (writing 65, reading 80, pre-algebra 39, algebra 46); ASSET scores of 40 in each category (writing, reading, numeric) or ALEKS score of 20 or higher. Students who are non-native speakers of "American English" will be required to submit TOEFL scores of 17 or above in each section-Reading, Listening, Speaking, and Writing.

Advanced Standing: Individuals accepted into the MLT program who have an understanding of and prior experience in the operations of the medical laboratory may qualify to complete a proficiency exam to "test out" of the Fundamentals of Laboratory Science course.

Program of Study

First Semester		Sem. Hrs.
MLT-120	Urinalysis	3
BIO-168+	Human Anatomy & Physiology I	4
CHM-110+	Introduction to Chemistry	3
CHM-111+	Introduction to Chemistry Lab	1
HSC-113+	Medical Terminology	2
MLT-111	Fundamentals of Lab Science	4
	Total Hours	**17**

Second Semester		
BIO-186+	Microbiology w/lab	4
BIO-173+	Human Anatomy & Physiology II	4
MLT-133	Erythrocyte Hematology	3
MLT-171	Immunology & Serology	3
	Total Hours	**14**

Summer Session		
ENG-105+	Composition I	3
PSY-111+	Introduction to Psychology	
	or	
PSY-121	Developmental Psychology	3
	Total Hours	**6**

Third Semester		
MLT-234	Leukocyte Hematology/Coagulation	4
MLT-250	Clinical Microbiology	4
MLT-241	Clinical Chemistry I	4.5
MLT-260	Immunohematology	4
	Total Hours	**16.5**

Fourth Semester		
MLT-243	Clinical Chemistry II	2
MLT-253	Parasitology & Mycology	2
MLT-280	Clinical Practicum I	8
	Total Hours	**12**

Summer Session (9 weeks)		
MLT-290	Clinical Seminar & Review	2
MLT-281	Clinical Practicum II	4.5
	Total Hours	**6.5**

+Course satisfies general education requirement.

Program Requirements: The student must complete all Medical Laboratory Technician (MLT) core classes within four years.

Graduation Requirement: Must pass all program courses with a "C" or better.

Optional electives: CHM-165, CHM-131, ENG-106, MAT-102, SOC-110, PSY-121, HUM-113, LIT-101, CSC-110

Students may extend the Medical Laboratory Technician Program over three years by taking partial semester class loads. See the MLT Coordinator.

Enrollment Date: Fall Semester
Minimum Required Credits: 72
Campus: Fort Dodge
Department: Health Science
CIP#: 51.10040200

Medicine

Associate of Arts (AA)/Associate of Science (AS)

Both physicians and physician assistants work in private physician's offices, hospitals, and other healthcare settings as part of medical teams involved in the prevention, detection, and treatment of disease as well as the repair of injuries. Medical science programs involve learning the normal structure and function of the human body and how they are altered by disease. To become a doctor or physician, a person must typically study for a minimum of eight years following high school graduation. This usually includes four years of college followed by four years of medical school. Physician Assistant programs are typically completed in six years. This includes four years of college followed by two years in a physician assistant program.

Suggested Program of Study: AA Degree

First Semester		Sem. Hrs.
ENG-105	Composition I	3
MAT-210	Calculus I	4
CHM-165	General Chemistry I	4
BIO-112	General Biology I	4
SDV-108	The College Experience	1
	Total Hours	**16**
Second Semester		
PSY-111	Introduction to Psychology	3
ENG-106	Composition II	3
BIO-113	General Biology II	4
CHM-175	General Chemistry II	4
	Total Hours	**14**
Third Semester		
SPC-112	Public Speaking	3
CHM-261	Organic Chemistry I	4
CSC-110	Introduction to Computers	3
	Humanities Elective	3
	Social Science Elective	3
	Total Hours	**16**
Fourth Semester		
CHM-271	Organic Chemistry II	4
MAT-157	Statistics	4
	Humanities Elective	3
	Humanities Elective	3
	Social Science Elective	3
	Total Hours	**17**

Suggested Program of Study: AS Degree

First Semester		Sem. Hrs.
ENG-105	Composition I	3
MAT-210	Calculus I	4
CHM-165	General Chemistry I	4
BIO-112	General Biology I	4
SDV-108	The College Experience	1
	Total Hours	**16**
Second Semester		
PSY-111	Introduction to Psychology	3
ENG-106	Composition II	3
BIO-113	General Biology II	4
CHM-175	General Chemistry II	4
CSC-110	Introduction to Computers	3
	Total Hours	**17**
Third Semester		
SPC-112	Public Speaking	3
PHY-162	College Physics I	4
CHM-261	Organic Chemistry I	4
	Humanities Elective	3
	Total Hours	**14**
Fourth Semester		
CHM-271	Organic Chemistry II	4
PHY-172	College Physics II	4
MAT-157	Statistics	4
	Social Science Elective	3
	Total Hours	**15**

The Pre-Med program requires Calculus. Other recommended courses are College Physics I and II and Statistics.

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 60
Campus: Fort Dodge, Storm Lake, and Webster City
Department: Science
CIP#: 24.01010200

Modern Languages

Associate of Arts (AA)

Modern Language Study is the study of another language and the culture of its people. Iowa Central Community College believes that the opportunity to study another language must be offered. Through this study the students will improve their ability to communicate, not only in the newly acquired language, but also in their own dialect. The college further believes that Modern Language Education develops an understanding of other cultures through its international focus. Modern Education provides students with a well-rounded, broad-based education allowing them to pursue life's goals.

Suggested Program of Study:

First Semester		Sem. Hrs.
ENG-105	Composition I	3
PSY-111	Introduction to Psychology	3
MAT-111	Math for Liberal Arts	4
SDV-108	The College Experience	1
	Modern Language Elective	4
	Total Hours	**15**
Second Semester		
ENG-106	Composition II	3
BIO-102	Introductory Biology	3
BIO-103	Introductory Biology Lab	1
SOC-110	Introduction to Sociology	3
	Modern Language Elective	4
	Total Hours	**14**
Third Semester		
SPC-112	Public Speaking	3
POL-121	International Relations	3
HIS-112	Western Civ: Ancient to Early Mod	4
	Humanities Elective	3
	Modern Language Elective	4
	Total Hours	**17**
Fourth Semester		
POL-111	American National Government	3
HIS-113	Western Civ: Early Mod to Present	4
CSC-110	Introduction to Computers	3
	Modern Language Elective	4
	Total Hours	**14**

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 60
Campus: Fort Dodge, Storm Lake, and Webster City
Department: Humanities
CIP#: 24.01010200

Mortuary Science

Associate of Arts (AA)

Students that are completing these degree requirements at Iowa Central Community College have the option of transferring to another institution to finish their coursework and become a licensed funeral director. Before entering into a Mortuary program, it is recommended that students have completed their general education coursework, in addition to anatomy and physiology, business, and accounting. This program allows students to complete a Mortuary Science program sooner than a Bachelor's program because most states only require a license to practice as long as the student has completed a practicum experience/preceptorship and pass their National Board Examination prior to graduation. There are some additional requirements before a student can become a licensed funeral director depending on location.

Suggested Program of Study:

First Semester		Sem. Hrs.
BUS-102	Introduction to Business	3
ENG-105	Composition I	3
BIO-102	Introductory Biology	3
BIO-103	Introductory Biology Lab	1
SDV-108	The College Experience	1
	Humanities Elective	3
	Total Hours	**14**
Second Semester		
ENG-106	Composition II	3
ACC-111	Introduction to Accounting	3
BIO-168	Human Anatomy & Physiology I	4
CSC-110	Introduction to Computers	3
	Math Elective	4
	Total Hours	**17**
Third Semester		
PSY-111	Introduction to Psychology	3
SPC-112	Public Speaking	3
BUS-185	Business Law I	3
BIO-173	Human Anatomy & Physiology II	4
	Humanities Elective	3
	Total Hours	**16**
Fourth Semester		
ECN-130	Principles of Microeconomics	3
	Humanities Elective	3
	Social Science Elective	3
	Distributed Electives	6
	Total Hours	**15**

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 60
Campus: Fort Dodge, Storm Lake, and Webster City
Department: Science
CIP#: 24.01010200

Music

Associate of Arts (AA)

The music program at Iowa Central has long been considered innovative and pioneering in helping shape trends in music education. The music department at Iowa Central Community College seeks to serve all musically talented students. Performing ensembles are available to any students with a musical background who desire to participate. These include: Concert Choir, Concert Band, Encore Singers Show Choir, Brass Ensemble, Encore Jazz Band, Pep Band, Vocal Jazz Ensemble, Marching Band

Suggested Program of Study:

		Sem. Hrs.
First Semester		
MUS-120	Music Theory I	3
MUS-118	Sight Singing and Ear Training I	2
MUA-120	Applied Piano (Proficiency)	1
SDV-108	The College Experience	1
ENG-105	Composition I	3
MAT-111	Math for Liberal Arts	4
	Total Hours	**14**
Second Semester		
MUS-121	Music Theory II	3
MUS-119	Sight Singing and Ear Training II	2
ENG-106	Composition II	3
MUS-104	Exploring Music	3
PSY-111	Introduction to Psychology	3
	Total Hours	**14**
Third Semester		
MUS-220	Music Theory III	3
MUS-218	Sight Singing and Ear Training III	2
SPC-112	Public Speaking.	3
BIO-102	Introductory Biology	3
BIO-103	Introductory Biology Lab	1
CSC-110	Introduction to Computers	3
	Total Hours	**15**
Fourth Semester		
MUS-221	Music Theory IV	3
MUS-219	Sight Singing and Ear Training IV	2
	Humanities Elective	3
	Social Science Elective	3
	Humanities Elective	3
	Social Science Elective	3
	Total Hours	**17**

In addition to the core music curriculum, students are encouraged to enroll in additional applied music and ensemble courses each semester to increase musical proficiency and/or to receive and retain scholarships

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 60
Campus: Fort Dodge, Storm Lake, and Webster City
Department: Humanities
CIP#: 24.01010200

Nursing - Associate Degree

Associate of Applied Science (AAS)

The Associate Degree Nursing program will prepare students for this exciting career with concentrated classroom studies and extensive clinical work (720 hours) based in a wide-range of health care settings. The first two semesters are identical in both the Practical Nursing (PN) program and the Associate Degree Nursing program enabling students to finish with the PN diploma after the first summer, and/or continue in the ADN program.

Program Mission Statement: The Associate Degree Nursing (ADN) program is committed to providing quality nursing education to aid students to meet their diverse learning needs in preparing for a career as a Registered Nurse.

Student Responsibilities: A medical health form, certification in basic cardiac life support, and other immunization requirements must be completed prior to starting the nursing courses. Transportation to the clinical site is the student's responsibility. Uniforms are purchased by the students and worn to clinical. All nursing students must complete a Criminal Record/Child and Adult Abuse check prior to attending clinical. Any student with a felony conviction must notify the Iowa Board of Nursing after they have completed requirements for licensure including completion of a course of study and filing an application. Upon completion of the program, graduates are qualified to take the National Council Licensure Exam (NCLEX).

Accreditation: The ADN program is approved by the Iowa Board of Nursing.

Admission Requirements: This program is a selective, limited enrollment program. Students who would like to be considered for admission must complete an additional nursing application packet. Students must also be enrolled in, or have previously completed any pre-requisites of the program with a "C" or higher before they will be considered for the program. Students must submit proof of their enrollment in/or completion prior to the application deadline. The following criteria is required for applicants: a minimum of a high school diploma (GPA 2.5) or equivalent (GED 550) or HiSET 15, minimum ASSET scores of 40 in writing and reading and 46 in math, COMPASS (writing 65, reading 80, pre-algebra 64, or algebra 51), ALEKS score of 30 or higher, or ACT scores of 18 in reading, English, and 20 in math. For students who are non-native speaker of "American English" will be required to submit TOEFL scores of 17 or above in each section-Reading, Listening, Speaking, and Writing. High School Biology, Algebra, English and Chemistry are highly recommended. Licensed Practical Nurses (LPN) may enter the ADN program as Advanced Standing students and continue in the second year to complete the requirements of the ADN program. Licensed Practical Nursing students must submit an Advanced Standing nursing application and submit a copy of their LPN license. All science courses are suggested to be completed within the past five years.

Program of Study - Fort Dodge & Webster City:

Pre-requisite		Sem. Hours
HSC-172+	75 Hour Nurse Aide T9905 or equivalent Nurse Aide course (Student must pass state certification exams)	3
BIO-168+	Human Anatomy & Physiology I	4
First Semester		
PNN-127	Fundamentals of Nursing in Health Care	5
HSC-112+	Medical Terminology	1
PNN-121	Clinical Practicum 1	1.5
PNN-206	Medication Administration for Nurses	1
PSY-121+	Developmental Psychology	3
BIO-151+	Nutrition	3
BIO-173+	Human Anatomy & Physiology II	4
SDV-035	Classroom Assistant	1
	Total Hours	**19.5**
Second Semester		
PNN-621	Life Span Health Care	8.5
PNN-622	Clinical Practicum 2	4
	Total Hours	**12.5**
Summer Session		
PSY-111+	Introduction to Psychology	3
BIO-186+	Microbiology	4
	Total Hours	**7**
Third Semester*		
ADN-405	Maternal Child Health Care (7.5 weeks)	6
ADN-407	Clinical Practicum 3 (7.5 weeks)	2
ADN-465	Psychiatric/Mental Health Care (7.5 weeks)	5
ADN-466	Clinical Practicum 4 (7.5 weeks)	2
	Total Hours	**15**
Fourth Semester*		
ADN-511	Adult Health Care	8.5
ADN-512	Clinical Practicum 5	4
SOC-110+	Introduction to Sociology	3
ENG-105+	Composition I	3
	Total Hours	**18.5**
Summer Session (6 wks)		
ADN-805	Management in Health Care	1
ADN-806	Clinical Practicum 6	2.5
	Total Hours	**3.5**

Program of Study - Storm Lake:

Pre-requisite		Sem. Hours
HSC-172+	75 Hour Nurse Aide T9905 or equivalent Nurse Aide course (Student must pass state certification exams)	3
BIO-168+	Human Anatomy & Physiology I	4
First Semester		
PNN-127	Fundamentals of Nursing in Health Care	5
HSC-112+	Medical Terminology	1
PNN-121	Clinical Practicum 1	1.5
PNN-206	Medication Administration for Nurses	1
PSY-121+	Developmental Psychology	3
BIO-151+	Nutrition	3
BIO-173+	Human Anatomy & Physiology II	4
SDV-035	Classroom Assistant	1
	Total Hours	**19.5**
Second Semester		
PNN-621	Life Span Health Care	8.5
PNN-622	Clinical Practicum 2	4
PSY-111+	Introduction to Psychology	3
	Total Hours	**15.5**
Summer Session		
ADN-465	Psychiatric/Mental Health Care (6 weeks)	5
ADN-466	Clinical Practicum 4 (6 weeks)	2
	Total Hours	**7**
Third Semester		
ADN-405	Maternal Child Health Care	6
ADN-407	Clinical Practicum 3	2
ENG-105+	Composition I	3
BIO-186+	Microbiology	4
	Total Hours	**15**
Fourth Semester		
ADN-511	Adult Health Care	8.5
ADN-512	Clinical Practicum 5	4
SOC-110+	Introduction to Sociology	3
	Total Hours	**15.5**
Summer Session (6 wks)		
ADN-805	Management in Health Care	1
ADN-806	Clinical Practicum 6	2.5
	Total Hours	**3.5**

+Course satisfies general education requirement.

Program Requirement: The student must complete all nursing core courses (PNN & ADN) within three years.

Graduation Requirement: Must pass all program courses with a "C" or better.

*At the Fort Dodge Center, the third and fourth semesters are interchangeable.

Enrollment Date: Fall and/or Spring Semester in Fort Dodge; Fall Semester in Webster City, Storm Lake
Minimum Required Credits: 83
Campus: Fort Dodge, Storm Lake, Webster City
Department: Health Science
CIP#: 51.16010200

Nursing - Practical

Diploma

The Practical Nursing (PN) program prepares students for entry-level positions, to provide nursing care under the supervision of a Registered Nurse or Physician. The first two semesters are identical in both the Practical Nursing (PN) program and the Associate Degree Nursing (ADN) program, enabling students to finish the Practical Nursing program after the first summer, or to continue in the Associate Degree Nursing program. The Practical Nursing program will educate you for this career in concentrated classroom studies, along with extensive clinical work (360 hours) based in a wide-range of health care settings.

Program Mission Statement: The Practical Nursing (PN) program is committed to providing quality nursing education to aid students to meet their diverse learning needs in preparing for a career as a Licensed Practical Nurse.

Student Responsibilities: A medical health form, certification in basic cardiac life support, and other immunization requirements must be completed prior to starting the nursing courses. Transportation to the clinical site is the student's responsibility. Uniforms are purchased by the students and worn to clinical. All nursing students must complete a Criminal Record/Child and Adult Abuse check prior to attending clinical. Any student with a felony conviction must notify the Iowa Board of Nursing after they have completed requirements for licensure including completion of a course of study and filing an application. Upon completion of the program, graduates are qualified to take the National Council Licensure Exam (NCLEX).

Approval: The Practical Nursing program is approved by the Iowa Board of Nursing.

Admission Requirements: This program is a selective, limited enrollment program. Students who would like to be considered for admission must complete an additional nursing application packet. Students must also be enrolled in, or have previously completed any pre-requisites of the program with a "C" or higher before they will be considered for the program. Students must submit proof of their enrollment in/or completion prior to the application deadline. The following criteria is required for applicants: minimum of a high school diploma (GPA 2.5) or equivalent (GED 550) or HiSET 15; minimum ASSET scores of 40 in writing and reading and 46 in math, COMPASS (writing 65, reading 80, pre-algebra 64, or algebra 51), ALEKS score of 30 or higher, or ACT scores of 18 in reading, English, and 20 in math. For students who are non-native speaker of "American English" will be required to submit TOEFL scores of 17 or above in each section-Reading, Listening, Speaking, and Writing. High School Biology, Algebra, English and Chemistry are highly recommended. All science courses are suggested to be completed within the past five years.

Program of Study - Fort Dodge, Storm Lake, Webster City

Pre-requisite		Sem. Hours
HSC-172+	75 Hour Nurse Aide T9905 or equivalent Nurse Aide course (Student must pass state certification exams)	3
BIO-168+	Human Anatomy & Physiology I	4
First Semester		
PNN-127	Fundamentals of Nursing in Health Care	5
HSC-112+	Medical Terminology	1
PNN-121	Clinical Practicum 1	1.5
PNN-206	Medication Administration for Nurses	1
PSY-121+	Developmental Psychology	3
BIO-151+	Nutrition	3
BIO-173+	Human Anatomy & Physiology II	4
SDV-035	Classroom Assistant	1
	Total Hours	**19.5**
Second Semester		
PNN-621	Life Span Health Care	8.5
PNN-622	Clinical Practicum 2	4
	Total Hours	**12.5**
Spring (Fort Dodge only) 6 wks		
Summer (Fort Dodge, Storm Lake, or Webster City) 6 wks		
PNN-811	Selected Clinical Nursing	1
PNN-731	Clinical Practicum	2.5
PNN-311	PN Issues & Trends	1
	Total Hours	**4.5**

+Course satisfies general education requirement.

Program Requirement: The student must complete all nursing courses (PNN) within three years.

Graduation Requirement: Must pass all program courses with a "C" or better.

Students may extend the Practical Nursing program over two years by taking the Arts and Science courses during the first year and the nursing courses during the second year.

Enrollment Date: Fall and/or Spring Semester in Fort Dodge; Fall Semester in Webster City, Storm Lake
Minimum Required Credits: 43.5
Campus: Fort Dodge, Storm Lake, Webster City
Department: Health Science
CIP#: 51.16130100

Optometry

Associate of Arts (AA)/Associate of Science (AS)

Optometry is the general health care concerned with the health of the eyes and the detection and treatment of vision problems. In this profession there are different areas of specialization but most patients see optometrists. There is some separation between optometry and ophthalmology. These two professions differ in that ophthalmologists are required to have a medical degree. An optometrist is usually not licensed to prescribe drugs or trained to perform surgery, although some states allow them to use topical drugs for therapeutic purposes. Optometrists are licensed medical professionals trained to prescribe and fit lenses needed for improved vision as well as treat various eye diseases.

Suggested Program of Study: AA Degree

First Semester		Sem. Hrs.
ENG-105	Composition I	3
BIO -112	General Biology I	4
CHM-165	General Chemistry I	4
MAT-127	College Algebra & Trigonometry	5
SDV-108	The College Experience	1
	Total Hours	**17**
Second Semester		
ENG-106	Composition II	3
BIO-113	General Biology II	4
CHM-175	General Chemistry II	4
CSC-110	Introduction to Computers	3
	Total Hours	**14**
Third Semester		
BIO-168	Human Anatomy & Physiology I	4
SPC-112	Public Speaking	3
PSY-111	Introduction to Psychology	3
	Humanities Elective	3
	Total Hours	**13**
Fourth Semester		
ECN-130	Principles of Microeconomics	3
BIO-173	Human Anatomy & Physiology II	4
	Social Science Elective	3
	Humanities Elective	3
	Humanities Elective	3
	Total Hours	**16**

Additional recommended courses include Microbiology and Organic Chemistry.

Suggested Program of Study: AS Degree

First Semester		Sem. Hrs.
ENG-105	Composition I	3
BIO -112	General Biology I	4
CHM-165	General Chemistry I	4
MAT-127	College Algebra & Trigonometry	5
SDV-108	The College Experience	1
	Total Hours	**17**
Second Semester		
ENG-106	Composition II	3
BIO-113	General Biology II	4
CHM-175	General Chemistry II	4
CSC-110	Introduction to Computers	3
	Total Hours	**14**
Third Semester		
CHM-261	Organic Chemistry I	4
BIO-168	Human Anatomy & Physiology I	4
SPC-112	Public Speaking	3
PHY-162	College Physics I	4
	Total Hours	**15**
Fourth Semester		
PSY -111	Introduction to Psychology	3
ECN-130	Principles of Microeconomics	3
BIO-173	Human Anatomy & Physiology II	4
BIO-186	Microbiology	4
	Humanities Elective	3
	Total Hours	**17**

PHY-162 College Physics I (needed if you did not have 1 year of H.S. physics).

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 60
Campus: Fort Dodge, Storm Lake, and Webster City
Department: Science
CIP#: 24.01010200

Pharmacy

Associate of Arts (AA)/Associate of Science (AS)

Pharmacy is a profession linking health to chemical sciences to ensure the safe and effective use of pharmaceutical drugs. Pharmacists typically assist patients with filling their prescriptions, carefully advising on their use, and providing drug information. They also review medications for safety and effectiveness.

Some pharmacists have pharmacy technicians that support them in their work and assist them with the daily operations of the pharmacy. This may include dispensing prescription drugs and other medical devices to patients and instructing them on proper use. This Iowa Central program in Pre-Pharmacy is the first two-years on the track of becoming an actual pharmacist.

Suggested Program of Study: AA Degree

First Semester		Sem. Hrs.
ENG-105	Composition I	3
BIO-112	General Biology I	4
CHM-165	General Chemistry I	4
MAT-210	Calculus I	4
SDV-108	The College Experience	1
	Total Hours	**16**
Second Semester		
ENG-106	Composition II	3
BIO-113	General Biology II	4
CHM-175	General Chemistry II	4
CSC-110	Introduction to Computers	3
PHI-145	Introduction to Ethical Conflicts	3
	Total Hours	**17**
Third Semester		
CHM-261	Organic Chemistry I	4
SPC-112	Public Speaking	3
MAT-157	Statistics	4
	Humanities Elective	3
	Total Hours	**14**
Fourth Semester		
PSY-111	Introduction to Psychology	3
ECN-120	Principles of Macroeconomics	3
CHM-271	Organic Chemistry II	4
	Humanities Elective	3
	Social Science Elective	3
	Total Hours	**16**

Physics is needed if it was not completed one year in H.S.

Additional recommended courses are Microbiology and Human Anatomy and Physiology I and II.

Suggested Program of Study: AS Degree

First Semester		Sem. Hrs.
ENG-105	Composition I	3
BIO-112	General Biology I	4
CHM-165	General Chemistry I	4
MAT-210	Calculus I	4
SDV-108	The College Experience	1
	Total Hours	**16**
Second Semester		
ENG-106	Composition II	3
BIO-113	General Biology II	4
CHM-175	General Chemistry II	4
CSC-110	Introduction to Computers	3
	Total Hours	**14**
Third Semester		
CHM-261	Organic Chemistry I	4
BIO-168	Human Anatomy & Physiology I	4
SPC-112	Public Speaking	3
MAT-157	Statistics	4
	Total Hours	**15**
Fourth Semester		
PSY-111	Introduction to Psychology	3
ECN-130	Principles of Microeconomics	3
CHM-271	Organic Chemistry II	4
BIO-173	Human Anatomy & Physiology II	4
	Humanities Elective	3
	Total Hours	**17**

PHY-162 College Physics I (needed if you did not have 1 year of H.S. physics)

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 60
Campus: Fort Dodge, Storm Lake, and Webster City
Department: Science
CIP#: 24.01010200

Physical Education

Associate of Arts (AA)

If you are an individual who enjoys (1) physical activity, (2) fitness, (3) sports activity, (4) working with people (young and old) and who is interested in their personal health and the health of others, then physical education is the discipline for you.

Ask physical educators to identify the most important aspect of their jobs and you'll likely be told that, first and foremost, they are responsible for helping young people acquire the skills and self-confidence they need to participate in a wide variety of physical activities - while in school and beyond.

Iowa Central's Physical Education curriculum combines courses in health, fitness, wellness, athletic training and emergency care, coaching, and sports activities. Professional courses in education are implemented with the physical education curriculum. The Physical Education curriculum provides general education coursework, specific skills training, and direct experience working with young people in a school setting. To be a teacher of Physical Education a student must graduate from an accredited teacher training institution. Students can attend Iowa Central for their first two years and then transfer to a public or private college for the remaining two years.

Suggested Program of Study:

First Semester		Sem. Hrs.
EDU213	Introduction to Education	3
PSY-111	Introduction to Psychology	3
ENG-105	Composition I	3
REL-105	Introduction to Religion	3
POL-111	American National Government	3
SDV-108	The College Experience	1
	Total Hours	**16**
Second Semester		
PSY-121	Developmental Psychology	3
ENG-106	Composition II	3
PSY-281	Educational Psychology	3
MAT-157	Statistics	4
EDU-255	Technology in the Classroom	3
	Total Hours	**16**
Third Semester		
SPC-112	Public Speaking	3
HIS-112	Western Civ: Ancient to Early Modern	4
PEC-121	Body Structure and Function	2
BIO-102	Introductory Biology	3
BIO-103	Introductory Biology Lab	1
	Cultural Studies Elective	3
	Total Hours	**16**
Fourth Semester		
EDU-115	Education and the Teaching Process	4
PEC 127	Care and Prevention of Athletic Injuries	2
PEC-111	Techniques and Theory of Coaching	2
CHM-110	Introduction to Chemistry	3
CHM-111	Introduction to Chemistry Lab	1
	Humanities Elective	3
	Total Hours	**15**

Coaching Authorization Certificate Program
Students completing the core courses for the state coaching authorization can receive a certificate from Iowa Central Community College. Students who complete this program will qualify for the Department of Education coaching authorization. The following courses are required for completion of the certificate program:

PEC-121	Body Structure and Function	2
PEC-111	Techniques and Theory of Coaching	2
PEC-115	Athletic Development and Human Growth	1
PEC-127	Care and Prevention of Athletic Injuries	2

Human Anatomy & Physiology (BIO-168) can substitute for PEC-121.
Developmental Psychology (PSY-121) can substitute for PEC-115.

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 60
Campus: Fort Dodge, Storm Lake, and Webster City
Department: Social Science
CIP#: 24.01010200

Physical Sciences

Associate of Arts (AA)/Associate of Science (AS)

The principal branches of physical science are physics, chemistry, astronomy, and earth science. People who pursue the study of physical science are interested in the processes that drive the world in which we live. If you are fascinated by the tremendous energy contained in a single atom, the power of a lightning bolt, the vast magnitude of the night sky or the surprising results of a chemical experiment, then a career in one of the physical sciences might be very satisfying to you. Iowa Central offers foundational coursework in chemistry, physics, and mathematics to prepare students for transfer to a 4-year institution.

Suggested Program of Study: AA Degree

First Semester		Sem Hrs.
ENG-105	Composition I	3
MAT-210	Calculus I	4
CHM-165	General Chemistry I	4
PSY-111	Introduction to Psychology	3
SDV-108	The College Experience	1
	Total Hours	**15**
Second Semester		
ENG-106	Composition II	3
MAT-216	Calculus II	4
CHM-175	General Chemistry II	4
CSC-110	Introduction to Computers	3
	Humanities Elective	3
	Total Hours	**17**
Third Semester		
SPC-112	Public Speaking	3
CHM-261	Organic Chemistry I	4
PHY-212	Classical Physics I	5
	Social Science Elective	3
	Total Hours	**15**
Fourth Semester		
CHM-271	Organic Chemistry II	4
PHY-222	Classical Physics II	5
	Social Science Elective	3
	Humanities Elective	3
	Humanities Elective	3
	Total Hours	**18**

Suggested Program of Study: AS Degree

First Semester		Sem Hrs.
ENG-105	Composition I	3
MAT-210	Calculus I	4
CHM-165	General Chemistry I	4
PSY-111	Introduction to Psychology	3
SDV-108	The College Experience	1
	Total Hours	**15**
Second Semester		
ENG-106	Composition II	3
MAT-216	Calculus II	4
CHM-175	General Chemistry II	4
CSC-110	Introduction to Computers	3
	Total Hours	**14**
Third Semester		
SPC-112	Public Speaking	3
CHM-261	Organic Chemistry I	4
PHY-212	Classical Physics I	5
	Social Science Elective	3
	Total Hours	**15**
Fourth Semester		
MAT-157	Statistics	4
CHM-271	Organic Chemistry II	4
PHY-222	Classical Physics II	5
	Humanities Elective	3
	Total Hours	**16**

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 60
Campus: Fort Dodge, Storm Lake, and Webster City
Department: Science
CIP#: 24.01010200

Physical Therapy

Associate of Arts (AA)/Associate of Science (AS)

Physical Therapy is one of the fastest growing health areas with responsibility for treating and correcting all types of physical disorders. The treatment you receive in physical therapy may be needed when certain health problems make it hard to move around or do certain tasks needed in everyday life. It can also help patients to recover faster after surgeries either through long or short-term care. Common health issues that may require physical therapy include back pain, tendon/ligament problems, arthritis, and multiple sclerosis, however there are many other conditions that may require treatment such as cancer, lung/breathing difficulties, nervous system problems, and people that have experienced major burns, bone breaks, and other wounds. Some patients may be receiving routine physical therapy care associated with former athletic injuries or everyday issues that arise simply from aging.

Typically physical therapists examine their patients and make treatment plans to help with flexibility, strength, endurance, coordination, and balance. This may require that patients do core exercises, stretch, lift weights, walk, swim, receive ultrasound and/or electrical stimulation, apply heat or cold treatments, or receive manual therapy. They tried to teach their patients exercises and tasks that can be practiced at home. The goal of these treatments is to make daily tasks and activities easier but also help to restore physical function and for some, increase the level of fitness.

Suggested Program of Study: AA Degree

First Semester		Sem. Hrs.
ENG-105	Composition I	3
MAT-127	College Algebra &Trigonometry	5
BIO-112	General Biology I	4
CHM-165	General Chemistry I	4
SDV-108	The College Experience	1
	Total Hours	**17**
Second Semester		
PSY-111	Introduction to Psychology	3
ENG-106	Composition II	3
BIO-113	General Biology II	4
CHM-175	General Chemistry II	4
	Humanities Elective	3
	Total Hours	**17**
Third Semester		
PSY-121	Developmental Psychology	3
CSC-110	Introduction to Computers	3
BIO-168	Human Anatomy and Physiology I	4
	Humanities Elective	3
	Total Hours	**13**
Fourth Semester		
SPC-112	Public Speaking	3
BIO-173	Human Anatomy and Physiology II	4
	Social Science Elective	3
	Humanities Elective	3
	Total Hours	**13**

Suggested Program of Study: AS Degree

First Semester		Sem. Hrs.
ENG-105	Composition I	3
MAT-127	College Algebra &Trigonometry	5
BIO-112	General Biology I	4
CHM-165	General Chemistry I	4
SDV-108	The College Experience	1
	Total Hours	**17**
Second Semester		
PSY-111	Introduction to Psychology	3
ENG-106	Composition II	3
BIO-113	General Biology II	4
CHM-175	General Chemistry II	4
	Humanities Elective	3
	Total Hours	**17**
Third Semester		
PHY-162	College Physics I	4
CSC-110	Introduction to Computers	3
BIO-168	Human Anatomy and Physiology I	4
	Social Science Elective	3
	Total Hours	**14**
Fourth Semester		
SPC-112	Public Speaking	3
MAT-157	Statistics	4
PHY-172	College Physics II	4
BIO-173	Human Anatomy and Physiology II	4
	Total Hours	**15**

Other highly recommended courses are Abnormal Psychology, Medical Terminology, College Physics I and II, and Statistics

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 60
Campus: Fort Dodge, Storm Lake, and Webster City
Department: Science
CIP#: 24.01010200

Political Science/Government

Associate of Arts (AA)

Political Science is the study of government, public policy and the political behavior of individuals and groups. Political Science uses both humanistic and scientific perspectives and skills to examine the United States, all countries and regions of the world, and international relations. Political science develops skills of analysis which also provide a means to study related areas in the Social Sciences.

Suggested Program of Study:

First Semester		Sem. Hrs.
ENG-105	Composition I	3
POL-111	American National Government	3
MAT-111	Math for Liberal Arts	4
HIS-151	U.S. History to 1877	3
SDV-108	The College Experience	1
	Total Hours	**14**
Second Semester		
ENG-106	Composition II	3
POL-112	American State and Local Government	3
PSY-111	Introduction to Psychology	3
SPC-112	Public Speaking	3
HIS-152	U.S. History Since 1877	3
	Total Hours	**15**
Third Semester		
SOC-110	Introduction to Sociology	3
POL-121	International Relations	3
SOC-115	Social Problems	3
PHI-145	Introduction to Ethical Conflicts	3
	Humanities Elective	3
	Total Hours	**15**
Fourth Semester		
SPC-122	Interpersonal Communication	3
SOC-200	Minority Group Relations	3
BIO-102	Introductory Biology	3
BIO-103	Introductory Biology Lab	1
CSC-110	Introduction to Computers	3
	Humanities Elective	3
	Total Hours	**16**

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 60
Campus: Fort Dodge, Storm Lake, and Webster City
Department: Social Science
CIP#: 24.01010200

Pre-Law

Associate of Arts (AA)

Law schools require a bachelor's degree in a field such as Political Science, History, Psychology, Economics, Accounting, or Business Management helps to prepare undergraduates for the successful pursuit of a legal career.

Suggested Program of Study:

First Semester		Sem. Hrs.
ENG-105	Composition I	3
PHI-145	Introduction to Ethical Conflicts	3
POL-111	American National Government	3
CSC-110	Introduction to Computers	3
SOC-110	Introduction to Sociology	3
SDV-108	The College Experience	1
	Total Hours	**16**
Second Semester		
ENG-106	Composition II	3
POL-112	American State and Local Government	3
MAT-111	Math for Liberal Arts	4
BUS-185	Business Law I	3
PSY-111	Introduction to Psychology	3
	Total Hours	**16**
Third Semester		
SPC-112	Public Speaking	3
POL-121	International Relations	3
BIO-102	Introductory Biology	3
BIO-103	Introductory Biology Lab	1
BUS-186	Business Law II	3
	Total Hours	**13**
Fourth Semester		
SPC-122	Interpersonal Communication	3
SOC-115	Social Problems	3
SOC-200	Minority Group Relations	3
REL-105	Introduction to Religion	3
	Humanities Elective	3
	Total Hours	**15**

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 60
Campus: Fort Dodge, Storm Lake, and Webster City
Department: Social Science
CIP#: 24.01010200

Process Plant Technology

Diploma/Associate of Applied Science (AAS)

The Process Plant Technology program is a program that introduces students to a wide variety of process plant technologies and troubleshooting techniques. This includes plant equipment and instrumentation. Plant processes such as fermentation, distillation, dehydration, evaporation, plant cooling, and plant heating are also part of the course study. The Process Plant Technology Program also gives the students exposure to the chemical side of process plants. This is achieved with an applied chemistry course emphasizing plant laboratory analysis and general chemistry understanding. Other areas included, that greatly increase the student's knowledge, are emissions, piping and instrumentation diagrams, material balance and Distributed Control Systems (DCS). A majority of the knowledge gained in the program is through hands-on classroom labs, projects, and field trips. Textbooks are chosen to encompass new technologies as they emerge.

Completion of these courses, which were industry driven, will enable an operator to be gainfully employed at the many new and growing process plants that have become a vital part of our state and national economy. Graduates will understand the many systems that are intertwined and how they are ultimately controlled.

Program of Study - Process Plant Operator (Diploma)

First Semester		Sem. Hrs.
ELE-250+	Math for Electricians*	3
ELE-114	DC Fundamentals	3
ELE-111	AC Fundamentals	3
BPT-300	Intro to Process Technology	4
BPT-335	Basic Fermentation	2
BPT-305	Technical Diagrams	2
	Total Hours	**17**
Second Semester		
ELE-195	Motor Controls	3
CHT-105	Applied Chemistry	4
BPT-315	Process Steam and Heating Systems	3
BPT-320	Process Cooling Systems	2
IND-110	CPR, First Aid and Safety	1
BPT-129	Distillation and Evaporation Theory	3
	Total Hours	**16**
	Diploma Total Hours	**33**

Program of Study - Process Plant Technology (AAS Degree)

Third Semester		
BPT-113	Process Instrumentation	3
BPT-340	Advanced Process Technology	4
BPT-310	Material Balance	2
IND-184	Mechanical Processes	2
IND-185	Predictive and Preventative Maintenance	2
+	Communication Elective	3
	Total Hours	**16**
Fourth Semester		
BPT-325	Emission Control Systems	2
IND-208	Industrial Pumps and Drives	2
PHY-184+	Applied Physics~	4
BPT-331	DCS & SCADA Control System	3
CSC-125	Microsoft Fundamentals	2
+	Humanities/Social Science Elective	3
	Total Hours	**16**
	AAS Degree Total Hours	**65**
Optional		
BUS-113	Workplace Readiness	1.5
IND-932	Internship	4

**Course may be substituted with a course from the same category as indicated in the approved general education course list.*

+Course satisfies general education requirement.

~Course may be substituted with a course from the approved general education course list.

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 33 (Diploma), 65 (AAS)
Campus: Fort Dodge
Department: Industrial Technology
CIP#: 41.03010200

Professional Photography

Associate of Applied Science (AAS)

The Photography Program at Iowa Central prepares students for a wide range of exciting, distinguished careers as creative, innovative leaders in the photography industry. The program consists of building a strong foundation in commercial photography, fine art, photojournalism, and portraiture by exploring the theory and practice of photography while working with state-of-the-art equipment. Students develop proficiency in digital and analog photography from capture through print and digital presentation. Along their learning pathway, students receive hands-on experience in studio lighting, black and white processing, basic video production and editing, alternative processes, and presentation practices. Focus will be placed on establishing an authentic personal brand utilizing a wide range of business and marketing strategies.

Our faculty and staff consist of experienced professionals who create an environment that encourages creativity, technical aptitude and critical thinking. The Photography Program is devoted not only to the refinement of visual skills, but to the cultivation of the mind. In addition to teaching technical skills and artistic design, the program stresses positive work habits and helps students develop personal style and career goals. Our objective is to successfully educate and graduate professional image makers with the technical, theoretical, artistic and business skills necessary for their success. Upon completion of our program, graduates can expect to open their own photographic business, freelance, or fill employment positions in the marketplace of today's ever-changing professional imaging industry.

Program of Study:

First Semester		Sem. Hrs.
PHT-183	Photography I	3
SPC-122+	Interpersonal Communication*	3
ART-151+	Design I	3
JOU-210	Media Law and Ethics	3
CSC-110	Introduction to Computers	3
	OR	
GRA-176	Layout Design I	3
CIS-265	Photoshop I (optional)	3
SDV-108+	The College Experience	1
	Total Hours	**16-19**
Second Semester		
PHT-185	Photography II	3
BUS-102+	Introduction to Business	3
BUS-112+	Business Math*	3
ART-115	Graphic Design	3
PSY-111+	Introduction to Psychology*	3
CIS-266	Photoshop II (optional)	3
	Total Hours	**15-19**
Third Semester		
PHT-189	Photography III.	3
PHT-195	Basic Set and Prop Design I	3
PHT-250	Marketing in Photography	2
PHT-233	Commercial Photography	3
SMM-170	Social Media Campaigns	3
PHT-288	Photography in Journalism	3
	Business Elective (Optional)	3
	Total Hours	**17-20**
Fourth Semester		
PHT-192	Photography IV	3
PHT-196	Basic Set and Prop Design II	3
PHT-299	Photography Portfolio Development	1
PHT-258	Business of Photography	2
PHT-230	Advanced Portraiture	3
ACC-111	Introduction to Accounting	3
ART-116	Graphic Design II (optional)	3
	Total Hours	**15-18**

**Course may be substituted with a course from the same category as indicated in the approved general education course list.*

+ Course satisfies general education requirement

Enrollment Date: Fall Semester
Minimum Required Credits: 75
Campus: Fort Dodge
Department: Humanities
CIP#: 50.04060200

Psychology

Associate of Arts (AA)

Psychology is the science that seeks to understand behavior and mental processes, and to apply that understanding in the service of human welfare. Psychologists are involved in studying, predicting, improving, or explaining some aspect of behavior and mental processes.

To begin to appreciate all that can fall within the realm of *behavior and mental process,* take a moment to jot down an answer to this question: Who are you?

Perhaps you described you personality or your 20/20 vision, your interests or your aspirations, your skills or your accomplishments, your IQ or your cultural background. You could have listed these and dozens of other things about yourself, and every one of them would reflect some aspect of what psychologists mean by behavior and mental processes.

What is Psychology about? Learning that --

1. We're all different, yet very much the same.
2. Human lives are continually changing.
3. Human behavior is motivated and has many different causes.
4. People play an active part in creating their own experiences.

Suggested Program of Study:

First Semester		Sem. Hrs.
PSY-111	Introduction to Psychology	3
ENG-105	Composition I	3
SDV-108	The College Experience	1
CSC-110	Introduction to Computers	3
SOC-115	Social Problems	3
	Total Hours	**13**
Second Semester		
ENG-106	Composition II	3
BIO-102	Introductory Biology	3
BIO-103	Introductory Biology Lab	1
PSY-121	Developmental Psychology	3
REL-105	Introduction to Religion	3
	Humanities Elective	3
	Total Hours	**16**
Third Semester		
SPC-112	Public Speaking	3
PSY-222	Child Psychology	3
MAT-157	Statistics	4
SOC-110	Introduction to Sociology	3
POL-111	American National Government	3
	Total Hours	**16**
Fourth Semester		
PSY-224	Adolescent Psychology	3
MAT-158	Statistics II	3
PSY-251	Social Psychology	3
SOC-120	Marriage and Family	3
	Humanities Elective	3
	Total Hours	**15**

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 60
Campus: Fort Dodge, Storm Lake, and Webster City
Department: Social Science
CIP#: 24.01010200

Radiologic Technology

Associate of Applied Science (AAS)

The Radiologic Technology program is an intensive program which prepares students to become skilled professionals in performing imaging examinations and accompanying responsibilities. Students receive clinical experience in radiology departments of health care affiliates located throughout Northwest and North Central Iowa. The program provides the students with entry level skills consistent with career opportunities nationwide.

Program Mission Statement: The Radiologic Technology program prepares students to become skilled entry level diagnostic Radiologic Technologist. The program provides an excellent learning environment while preparing students for this profession.

Program Requirements: Students must earn a grade of a "C" or better in all Radiologic Technology program of study courses and meet the necessary prerequisites to progress in the program. The student must complete the program with a grade point average of 2.0 or better. The student must complete all radiology specific courses within three years.

Student Responsibilities: Students receive clinical experience in a variety of clinical settings. A medical health form, certification in basic cardiac life support, and other immunization requirements must be completed prior to attending clinical. Transportation to the clinical site is the student's responsibility. Uniforms are purchased by the student and worn to clinical. Graduates of the program are academically eligible to take the exam administered by the American Registry of Radiologic Technologists. Upon successful completion of this exam, they become a Registered Radiologic Technologist R.T. (R) All radiology students must complete a Criminal Record/Child and Adult Abuse Check prior to attending clinical. Students with a felony or misdemeanor conviction must notify the American Registry of Radiologic Technologists prior to entering the program, to ensure they are eligible to take the Registry's Examination.

Accreditation: The Radiologic Technology Program is accredited by The Joint Review Committee on Education in Radiologic Technology, 20 North Wacker Drive, Suite 2850, Chicago, Illinois, 60606-3182. Telephone number: 312-704-5300.

Admission Requirements: This program is a selective, limited enrollment program. Students who would like to be considered for admission must complete an additional application packet. Students must also be enrolled in, or have previously completed any pre-requisites of the program with a "C" or higher before they will be considered for the program. Students must submit proof of their enrollment in/or completion prior to the application deadline. The following criteria is required for applicants: a minimum of a high school diploma (GPA 2.5) or equivalent (GED 550) or HiSET 15; minimum Asset scores of 40 in writing, reading, and 46 in math, Compass (writing 65, reading 80, pre-algebra 64 or algebra 51), or ACT scores of 18 in reading, english, and 20 in math. High school Biology, Algebra, English, and Chemistry are highly recommended.

Program of Study

Pre-requisites		Sem. Hrs.
HSC-113+	Medical Terminology	2
BIO-168+	Human Anatomy & Physiology I	4
	Mathematics Elective*	3
First Semester		
HSC-104+	Introduction to Health Care	2
BIO-173+	Human Anatomy & Physiology II	4
RAD-320	Imaging I	2
RAD-122	Radiographic Procedures I	4
RAD-210	Clinical Education I	4
	Total Hours	**16**
Second Semester		
PSY-111+	Introduction to Psychology	
	or	
PSY-112	Psychology of Human Relations	3
RAD-430	Radiographic Physics	3
RAD-365	Imaging II	2
RAD-142	Radiographic Procedures II	4
RAD-230	Clinical Education II	4
	Total Hours	**16**
Third Semester (Summer Session)		
RAD-163	Radiographic Procedures III	2.5
RAD-270	Clinical Education III	3.5
RAD-182	Special Procedures	2
	Total Hours	**8**
Fourth Semester		
ENG-105+	Composition 1	3
RAD-770	Film Critique & Evaluation	2.5
RAD-896	Quality Assurance	2
RAD-510	Clinical Education IV	6
	Computer Course**	2
	Total Hours	**15.5**
Fifth Semester		
RAD-570	Clinical Education V	8
RAD-738	Radiologic Pathology	2
RAD-850	Radiation Protection & Biology	3
	Total Hours	**13**
Sixth Semester (9 Week Summer Session)		
RAD-690	Cross Sectional Anatomy	1
RAD-946	Seminar	2
RAD-620	Clinical Education VI	4.5
	Total Hours	**7.5**

CT/MRI/US Internship
Iowa Central is partnering with the University of Iowa in the radiation sciences to offer Computed Tomography (CT), Magnetic Resonance Imaging (MRI) and Ultrasound (US) internships. The agreement will allow students to receive their clinical education through Iowa Central while taking classes online through the University of Iowa. Students will receive a certificate upon successful completion of the program. Students have the opportunity to continue and complete a Bachelors degree online from the University of Iowa. See program coordinator or Iowa Central website for internship application.

**Course may be substituted with a course from the same category on the approved AA Degree sheet.*

***Computer electives must be chosen from the prefixes BCA or CSC.*

+Course satisfies general education requirement.

Program Requirement: The student must complete all Radioogy core courses (RAD) within three years.

Graduation Requirement: Must pass all program courses with a "C" or better.

Students may extend the Radiologic Technology Program over three years by taking the Arts and Science courses the first year and the Radiologic Technology courses during the second and third years.

Electives: ENG-106, CHM-110 & CHM-111, SPC-112, FLS-111, PEC-127, PEC-121, SOC-110, ART-101

Enrollment Date: Fall Semester
Minimum Required Credits: 85
Campus: Fort Dodge
Department: Health Science
CIP#: 51.09110200

Recreation Facilities Management

Associate of Applied Science (AAS)

The Associate of Applied Science degree in Recreation and Facility Management is designed to offer students the opportunity to work in a wide range of sports facilities and/or recreation organizations upon graduation. Students will enroll in a selection of courses to develop specific skills in: sports facilities management, recreation administration, indoor and outdoor recreation programming, and marketing of sports and recreation facilities.

Upon graduation, successful students will have the background necessary to move into entry-level positions in a variety of sports and recreation fields, included but not limited to: Fitness and Health Clubs, YMCA's, Park and Recreation organizations, Collegiate Athletics, Pro/Semi-Pro Teams or Clubs, and other related entry-level sports/recreation positions in the for-profit, non-profit, or government sectors. As a component of the program, students will complete an internship, gaining them valuable experience as they work in various local recreation organizations during their course of study.

Suggested Program of Study:

First Semester		Sem. Hrs.
REC-120	Sports Facility Management	3
REC-130	Intro to Recreation Administration	3
CSC-110+	Introduction to Computers	3
MKT-131	Social Media Marketing	3
PEC-111	Techniques and Theory of Coaching	2
PEH-141	First Aid	2
	Total Hours	**16**
Second Semester		
REC-145	Intro to Outdoor Recreation	3
MGT-101	Principles of Management	3
ECN-120+	Principles of Macroeconomics	3
SPC-122+	Interpersonal Communication*	3
BUS-112+	Business Mathematics*	3
	Total Hours	**15**
Summer Session		
REC-932	Internship	4
	Total Hours	**4**
Third Semester		
REC-135	Sports Facility Marketing	3
AGH-180	Turfgrass Facilities Management	2
BUS-114+	Workplace Communications*	3
BUS-180	Business Ethics	3
PSY-121+	Developmental Psychology*	3
PEC-121	Body Structure and Function	2
	Total Hours	**16**
Fourth Semester		
REC-155	Recreational Activity Management	3
ACC-102	Workplace Accounting**	3
PET-105	Basic Athletic Training	3
ECN-130	Principles of Microeconomics	3
	Program Elective***	3
	Total Hours	**15**
	AAS Degree Total Hours	**66**

**Course may be substituted with a course from the same category as indicated in the approved general education course list.*

***Course may be substituted with any upper level accounting course*

****Program elective must be chosen from the following courses: ACC 142 Financial Accounting, BUS 130 Introduction To Entrepreneurship, CIS 265 Photoshop 1, or MKT 110 Principles of Marketing.*

+Course satisfies general education requirement.

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 66
Campus: Fort Dodge
Department: Business
CIP#: 31.03010200

Religious Studies

Associate of Arts (AA)

Religion is a complex network of ideas and actions (ethical and ritual) that express a group's sense of the ultimate meaning of life. The academic study of religion examines how the beliefs and values of contemporary and historical cultures shape and are shaped by societal factors, long-standing traditions, and distinctive forms of literary and artis¬tic expression. Religion scholars ask not whether certain beliefs are true but what they mean to those who hold them to be true, how they came to have a particular form and content, and what impact they have on their intellectual and social environments. Skill in close reading of texts and critical ana1ysis of concepts and historical relationships are among the benefits of such study, which has been found helpful by many preparing for careers in theology, education, law, medicine, journalism, international business, government, and social work.

Suggested Program of Study:

First Semester		Sem. Hrs.
ENG-105	Composition I	3
REL-105	Introduction to Religion	3
PSY-111	Introduction to Psychology	3
MAT-111	Math for Liberal Arts	4
SDV-108	The College Experience	1
	Total Hours	**14**
Second Semester		
ENG-106	Composition II	3
PHI-145	Introduction to Ethical Conflicts	3
BIO-102	Introductory Biology	3
BIO-103	Introductory Biology Lab	1
PSY-251	Social Psychology	3
SOC-115	Social Problems	3
	Total Hours	**16**
Third Semester		
SPC-112	Public Speaking	3
POL-121	International Relations	3
SOC-200	Minority Group Relations	3
PHI-101	Introduction to Philosophy	3
	Humanities Elective	3
	Total Hours	**15**
Fourth Semester		
POL-111	American National Government	3
SOC-120	Marriage and Family	3
HIS-152	U.S. History Since 1877	3
SOC-110	Introduction to Sociology	3
CSC-110	Introduction to Computers	3
	Total Hours	**15**

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 60
Campus: Fort Dodge, Storm Lake, and Webster City
Department: Social Science
CIP#: 24.01010200

Social Sciences

Associate of Arts (AA)

Social Science is ultimately concerned with human behavior in all of its complexity and with the various kinds of social relationships which influence indi¬viduals throughout their lives. Social Scientists are interested in discovering the ways in which people are affected by their associations with various human groups, both large and small, including the multiplicity of organizations and institutions that characterize modern society. Through the social sciences, the history of social institutions and the continuing process of social change are studied.

Suggested Program of Study:

First Semester		**Sem. Hrs.**
ENG-105	Composition I	3
HIS-151	U.S. History to 1877	3
PSY-111	Introduction to Psychology	3
SOC-110	Introduction to Sociology	3
REL-105	Introduction to Religion	3
SDV-108	The College Experience	1
	Total Hours	**16**
Second Semester		
ENG-106	Composition II	3
HIS-152	U.S. History Since 1877	3
POL-121	International Relations	3
MAT-111	Math for Liberal Arts	4
CSC-110	Introduction to Computers	3
	Total Hours	**16**
Third Semester		
SPC-112	Public Speaking	3
PSY-251	Social Psychology	3
PSY-121	Developmental Psychology	3
	Humanities Elective	3
	Humanities Elective	3
	Total Hours	**15**
Fourth Semester		
BIO-102	Introductory Biology	3
BIO-103	Introductory Biology Lab	1
SOC-115	Social Problems	3
SOC-200	Minority Group Relations	3
POL-111	American National Government	3
	Total Hours	**13**

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 60
Campus: Fort Dodge, Storm Lake, and Webster City
Department: Social Science
CIP#: 24.01010200

Social Work

Associate of Arts (AA)

Social Work is a profession that exists to assist other people through life's most difficult challenges. Social workers help individuals, groups, and communities to function successfully in the social arena, dealing with obstacles ranging from poverty and domestic abuse to disability and mental illness. Clinical social workers diagnosis and treat individuals with a variety of issues such a mental, behavioral, or emotional issues. Social workers must be compassionate and sensitive to others' problems, responsible and committed to helping those in need, and well educated in the diverse fields that fall under the social work umbrella. Social work can be highly challenging, but is also very rewarding career path. The social work profession has numerous opportunities to make a difference in someone's life. Some individuals advocate for social change in our country or to assist with international relief. Other social work settings include a wide variety such as schools, welfare and human service agencies, hospitals, corporations, or private practice. Social workers may work evening, weekends, and holidays.

Suggested Program of Study:

First Semester		Sem. Hrs.
ENG-105	Composition I	3
SOC-110	Introduction to Sociology	3
PSY-111	Introduction to Psychology	3
SOC-150	Introduction to Human Services	3
REL-105	Introduction to Religion	3
SDV-108	The College Experience	1
	Total Hours	**16**
Second Semester		
MAT-111	Math for Liberal Arts	4
ENG-106	Composition II	3
SOC-115	Social Problems	3
CSC-110	Introduction to Computers	3
	Total Hours	**13**
Third Semester		
HSV-220	Introduction to Counseling	3
SPC-112	Public Speaking	3
PSY-121	Developmental Psychology	3
POL-111	American National Government	3
BIO-102	Introductory Biology	3
BIO-103	Introductory Biology Lab	1
	Total Hours	**16**
Fourth Semester		
HUM-113	Exploring the Humanities	3
SOC-200	Minority Group Relations	3
SOC-120	Marriage & Family	3
PSY-251	Social Psychology	3
	Humanities Elective	3
	Total Hours	**15**

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 60
Campus: Fort Dodge, Storm Lake, and Webster City
Department: Social Science
CIP#: 24.01010200

Sociology

Associate of Arts (AA)

Sociology is the application of scientific principles and procedures to understand and solve the problems of social groups, organizations, and institutions. Sociologists study how people relate to each other and how groups influence individuals. Sociologists use skills of analysis that provide a means to study related areas in the Social Sciences.

Suggested Program of Study:

First Semester		Sem. Hrs.
ENG-105	Composition I	3
SOC-110	Introduction to Sociology	3
PSY-111	Introduction to Psychology	3
REL-105	Introduction to Religion	3
SDV-108	The College Experience	1
	Total Hours	**13**
Second Semester		
ENG-106	Composition II	3
MAT-111	Math for Liberal Arts	4
SOC-115	Social Problems	3
PHI-145	Introduction to Ethical Conflicts	3
HIS-152	U.S. History Since 1877	3
	Total Hours	**16**
Third Semester		
PSY-251	Social Psychology	3
SPC-112	Public Speaking	3
GEO-121	World Regional Geography	3
POL-121	International Relations	3
BIO-102	Introductory Biology	3
BIO-103	Introductory Biology Lab	1
	Total Hours	**16**
Fourth Semester		
HUM-113	Exploring the Humanities	3
SOC-200	Minority Group Relations	3
ANT-105	Cultural Anthropology	3
SOC-120	Marriage & Family	3
CSC-110	Introduction to Computers	3
	Total Hours	**15**

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 60
Campus: Fort Dodge, Storm Lake, and Webster City
Department: Social Science
CIP#: 24.01010200

Supply Chain Management

Certificate/Diploma/Associate of Applied Science (AAS)

Supply Chain Management is a discipline concerned with the efficient and effective flow of materials through the supply chain system. Supply Chain Management assume the "supply chain system" approach to the management of activities such as purchasing, material management, inventory management, operations, packaging, warehousing, transportation, and customer service.

The two-year program culminates with the internship (on-the-job training) in a logistics or transportation related position. The internship program provides students with the opportunity to gain valuable, real-world experience linking logistics and transportation theories and practices with the working world.

Program of Study:

First Semester		Sem. Hrs.
MGT-260	Introduction to Business Logistics	3
MGT-261	Principles of Transportation Management	3
BUS-102	Introduction to Business	3
CSC-110+	Introduction to Computers	3
MGT-101	Principles of Management	3
	Total Hours	**15**
Second Semester		
MGT-262	Principles Purchasing	3
MGT-263	Principles Distribution & Warehouse Management	3
ENG-105+	Composition I	3
BUS-161+	Human Relations*	
	or	
PSY-112+	Psychology of Human Relations	3
BUS-185	Business Law I	3
	Total Hours	**15**
Third Semester		
MGT-264	Demand Planning & Inventory Management	3
SPC-112+	Public Speaking	3
PHI-145	Introduction to Ethical Conflict	3
ECN-120	Principles of Macroeconomics	3
ACC-111	Introduction to Accounting	3
SOC-110	Introduction to Sociology	3
	Total Hours	**18**
Fourth Semester		
MGT-265	International Transportation and Logistics	3
MGT-270	Operations Production Management	3
ECN-130	Principles of Microeconomics	3
BUS-932	Internship (On Campus Student)**	
	or	
MGT-280	Capstone (Online Student)**	3
+	Math Elective	3
	Total Hours	**15**
	AAS Degree Total Hours	**63**

Program of Study - Logistics Management Certificate:

First Semester		Sem. Hrs.
MGT-260	Introduction to Business Logistics	3
MGT-261	Principles of Transportation Management	3
	Select 2 of the following "elective courses for total of 6 credits:	
MGT-262	Principles Purchasing & Logistics	3
MGT-263	Principles Distribution & Warehouse Management	3
MGT-264	Demand Planning & Inventory Management	3
MGT-265	International Transportation and Logistics	3
MGT-270	Operations Production Management	3
BUS-932	Internship**	3
	Certificate Total Hours	**12**

Program of Study - Supply Chain Management Diploma:

First Semester		Sem. Hrs.
MGT-260	Introduction to Business Logistics	3
MGT-261	Principles of Transportation Management	3
MGT-264	Demand Planning & Inventory Management	3
BUS-114+	Workplace Communications*	3
BUS-112	Business Math	3
	or	
ACC-111	Introduction to Accounting***	3
	Total Hours	**15**
Second Semester		
MGT-262	Principles Purchasing	3
MGT-263	Principles Distribution & Warehouse Management	3
MGT-265	International Transportation and Logistics	3
MGT-270	Operations Production Management	3
BUS-932	Internship**	3
	Total Hours	**15**
	Diploma Total Hours	**30**

**Course may be substituted with a course from the same category as indicated in the approved general education course list.*

***On campus students are required to take BUS-932 and online students are required to take MGT-280.*

****Course may be replaced by a completed higher level Math or Accounting course.*

+Course satisfies general education requirement.

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 30 (Diploma), 63 (AAS), 12 (Certificate)
Campus: Fort Dodge
Department: Business
CIP#: 52.02030200

Theatre

Associate of Arts (AA)

A major in theatre scans several areas of interest—from those who hope to pursue acting and directing in stage, film and television to the technical areas of interest which range from lighting and costumes to stage management and set design. Often students will pursue an education degree in order to teach theatre as well as honing skills which open doors in broadcasting, communication, and business. Theatre also falls under the Performing Arts umbrella also involves performance majors in vocal and instrumental music as well as dance and design. Theatre performance opportunities on campus include a play in the fall and a musical in the spring with student-led opportunities in improvisation throughout the year. Course offerings include Acting I and II, Oral Interpretation, Introduction to Theatre and Theatre Production.

Suggested Program of Study:

First Semester		Sem. Hrs.
ENG-105	Composition I	3
MAT-111	Math for Liberal Arts	4
DRA-101	Introduction to Theatre	3
DRA-130	Acting I	3
SDV-108	The College Experience	1
	Total Hours	**14**

Second Semester		
ENG-106	Composition II	3
DRA-132	Acting II	3
CSC-110	Introduction to Computers	3
PSY-111	Introduction to Psychology	3
	Humanities Elective	3
	Total Hours	**15**

Third Semester		
SPC-112	Public Speaking	3
SPC-122	Interpersonal Communication	3
SPC-140	Oral Interpretation	3
BIO-102	Introductory Biology	3
BIO-103	Introductory Biology Lab	1
	Social Science Elective	3
	Total Hours	**16**

Fourth Semester		
SPC-132	Group Communication	3
	Social Science Elective	3
	Elective	3
	Elective	3
	Elective	3
	Total Hours	**15**

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 60
Campus: Fort Dodge, Storm Lake, and Webster City
Department: Humanities
CIP#: 24.01010200

Turfgrass Management

Certificate/Diploma/Associate of Arts (AA)/Associate of Applied Science (AAS)

The Turfgrass Management program includes topics of interest in Turfgrass Management, Pesticide Application, Irrigation Systems, Landscaping, Soils, and Plants. The program will utilize facilities on campus, such as the athletic complexes, residential life building landscaping, as well as general field and campus landscaping maintenance. The student will leave the program with valuable knowledge and experience to be able to maintain personal residences, golf courses, athletic fields and parks.

A second option of study allows the student to take the four core Turfgrass Management Classes: Principles of Horticulture, Woody Plants and Trees, Herbaceous Plant Materials, and Landscape Design Techniques I. The student will also take general education classes, such as Biology, Chemistry, Finite Math, Economics and Western Civilization, which will allow him/her to start in the Turfgrass Management program at a university.

This program will give the students hands-on experience of taking skills learned in the classroom directly to Willow Ridge Golf Course for implementations.

Program of Study - Turfgrass Technician Diploma:

First Semester		Sem. Hrs.
AGH-112	Introduction to Turfgrass Management	3
AGH-161	Irrigation Systems	3
AGH-120	Herbaceous Plant Materials	3
AGH-141	Equipment Operations	3
AGH-255	Applicator License Prep	1
AGH-340	Turfgrass Professionalism I	1
BUS-112+	Business Mathematics*	3
	Total Hours	**17**

Second Semester		
AGH-211	Advanced Turfgrass Management	3
AGH-152	Landscape Design Techniques	3
AGH-221	Principles of Horticulture	3
AGH-156	Landscape Design II	3
AGH-124	Woody Plants/Trees	3
AGH-350	Turfgrass Professionalism II	1
	Total Hours	16

Summer Session (Required)		
AGH-805	Horticulture Internship I	3
AGH-172	Landscape Maintenance	3
AUT-121	Small Engines	1
	Total Hours	**7**
	Diploma Total Hours	**40**

Program of Study: Turfgrass Technician AAS Degree:

Third Semester		
AGH-180	Turfgrass Facilities Management	2
REC-120	Sports Facility Management	3
REC-130	Intro to Recreation Administration	3
REC-135	Sports Facility Marketing	3
BUS-114+	Workplace Communications*	3
CSC-110+	Introduction to Computers	3
	Total Hours	**17**

Fourth Semester		
REC-145	Intro. To Outdoor Recreation	3
REC-155	Recreational Activity Management	3
ACC-102	Workplace Accounting**	3
MKT-110+	Principles of Marketing	3
+	Social Science/Humanities Elective	3
	Total Hours	**15**
	AAS Degree Total Hours	**72**

Suggested Program of Study - Turfgrass Technician AA Degree:

First Semester		Sem. Hrs.
ENG-105	Composition I	3
BIO-112	General Biology	4
AGH-124	Woody Plants/Trees	3
AGH-221	Principles of Horticulture	3
SDV-108	College Experience	1
	Total Hours	**14**

Second Semester		
ENG-106	Composition II	3
BIO-113	General Biology II	4
AGH-152	Landscape Design Technology	3
CSC-110	Introduction to Computers	3
ECN-130	Microeconomics	3
	Total Hours	**16**

Third Semester		
CHM-165	General Chemistry I	4
AGH-120	Herbaceous Plant Materials	3
MUS-104	Exploring Music	3
SPC-112	Public Speaking	3
MAT-140	Finite Math	3
	Total Hours	**16**

Fourth Semester		
SOC-110	Introduction to Sociology	3
CHM-175	General Chemistry II	4
ECN-120	Macroeconomics	3
PHI-145	Introduction to Ethical Conflict	3
HIS-112	Western Civilization	4
	Total Hours	**17**

Turfgrass Assistant Certificate:

AGH-112	Introduction to Turfgrass Management	3
AGH-161	Irrigation Systems	3
AGH-120	Herbaceous Plant Materials	3
AGH-255	Applicator License Prep	1
AGH-221	Principles of Horticulture	3
AGH-152	Landscape Design Techniques	3
	Certificate Total Hours	**16**

**Course may be substituted with a course from the same category as indicated in the approved general education course list.*

+Course satisfies general education requirement.

***Course may be substituted with an upper level accounting course.*

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 40 (Diploma), 72 (AAS), 16 (Certificate)
Campus: Fort Dodge
Department: Business
CIP#: 01.06070200

TV and Radio Production

Associate of Applied Science (AAS)

Iowa Central's Radio Broadcasting Program provides thorough, hands-on training and experience for a career in the radio industry. From writing to announcing, sales to sports, digital audio production to programming, we'll teach you the skills you need in order to succeed in this highly competitive field.

Iowa Central's Broadcasting Program offers an intense and practical blend of classroom studies and hands-on experience. The two-year program includes a summer internship session. During the eight-week summer internship, students work at a professional radio station, gaining valuable experience and networking with industry professionals. During their time at Iowa Central, students may also take advantage of part-time opportunities at one of eight professional radio stations in Fort Dodge and the surrounding area. Upon completion of the program graduates receive an Associate in Applied Science Degree.

Graduates of our program learn how to prepare effective resumes and audition tapes. They gain valuable "real life" interviewing experience. And they can take advantage of our job placement service. Course credits are also transferable to four-year institutions for students wishing to continue their education at the university level.

KICB-FM (88.1 FM) is a fully-licensed, 240-watt radio station, broadcasting seven days a week from the Iowa Central campus. KICB is the only student-staffed, student-managed community college radio station in the state. The station has been on the air since 1971. KICB operates under the supervision of the department's professional teaching staff, all of whom have years of professional experience in the industry.

Program of Study:

	First Semester	**Sem. Hrs.**
MKT-131	Social Media Marketing	3
MMS-145	Broadcast Writing	3
MMS-171	Audio Production	2
MMS-172	Video Production	2
MMS-120	Media Practices I	3
+	Social Science or Humanities Elective	3
	Total Hours	**16**
	Second Semester	
MMS-190	Broadcast Promotions	3
MMS-173	Adv. Audio Production	2
MMS-174	Adv. Video Production	2
MMS-154	TV and Radio Announcing	3
MMS-149	Sports Reporting	3
MMS-121	Media Practices II	3
	Total Hours	**16**
	Third Semester	
MMS-191	TV and Radio Production 1	4
MMS-201	Media Practices 3	3
JOU-121	News Writing and Reporting	3
JOU-210	Media Law and Ethics	3
MKT-110+	Principals of Marketing	3
	Total Hours	**16**
	Fourth Semester	
MMS-192	TV and Radio Production 2	4
MMS-203	Media Practices IV	3
BUS-112+	Business Mathematics*	3
ENG-105+	Composition I	3
	+General Education Elective	3
	Total Hours	**16**
	Summer Session	
MMS-938	On-the-Job Training	4
	AAS Degree Total Hours	**68**

**Course may be substituted with a course from the same category as indicated in the approved general education course list.*

+Course satisfies general education requirement.

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 68
Campus: Fort Dodge
Department: Business
CIP#: 10.02020200

Veterinary Medicine

Associate of Arts (AA)/Associate of Science (AS)

Veterinary Medicine is a widely practiced science that specializes in the prevention, diagnosis, and treatment of injury, illness, disease, and disorders in animals. This role is equivalent to doctors in human medicine. Veterinarians can treat all kinds of different species of animals including wild and exotic animals, although most treat domestic animals. There are different specializations including large animal medicine that includes livestock and horses, laboratory medicine, dermatology, internal medicine, and surgery.

Many veterinarians have nurses, technicians, or assistants that work within their practice, but the tasks they perform to assist depends completely on the skill level and qualifications they have. Iowa Central's Pre-Veterinary Program is the first two years to become a veterinarian.

Suggested Program of Study: AA Degree

First Semester		Sem. Hrs.
ENG-105	Composition I	3
BIO-112	General Biology I	4
CHM-165	General Chemistry I	4
SDV-108	The College Experience	1
	Humanities Elective	3
	Total Hours	**15**
Second Semester		
ENG-106	Composition II	3
BIO-113	General Biology II	4
CHM-175	General Chemistry II	4
CSC-110	Introduction to Computers	3
MAT-157	Statistics	4
	Total Hours	**18**
Third Semester		
SPC-112	Public Speaking	3
CHM-261	Organic Chemistry I	4
PSY-111	Introduction to Psychology	3
	Social Science Elective	3
	Humanities Elective	3
	Total Hours	**16**
Fourth Semester		
BIO-186	Microbiology	4
CHM-271	Organic Chemistry II	4
	Humanities Elective	3
	Social Science Elective	3
	Total Hours	**14**

Suggested Program of Study: AS Degree

First Semester		Sem. Hrs.
ENG-105	Composition I	3
BIO-112	General Biology I	4
CHM-165	General Chemistry I	4
PSY-111	Introduction to Psychology	3
SDV-108	The College Experience	1
	Total Hours	**15**
Second Semester		
ENG-106	Composition II	3
BIO-113	General Biology II	4
CHM-175	General Chemistry II	4
MAT-127	College Algebra & Trigonometry	5
	Total Hours	**16**
Third Semester		
SPC-112	Public Speaking	3
MAT-210	Calculus I	4
CHM-261	Organic Chemistry I	4
PHY-162	College Physics I	4
	Total Hours	**15**
Fourth Semester		
CHM-271	Organic Chemistry II	4
PHY-172	College Physics II	4
CSC-110	Introduction to Computers	3
	Humanities Elective	3
	Social Science Elective	3
	Total Hours	**17**

Recommended General Education Courses:
Introduction to Ethical Conflict
Art Appreciation
History Courses
Minority Group Relations
Calculus
American Diversity

Additional recommended courses are Human Anatomy & Physiology I and College Physics I and II.

Enrollment Date: Fall and/or Spring Semester
Minimum Required Credits: 60
Campus: Fort Dodge, Storm Lake, and Webster City
Department: Science
CIP#: 24.01010200

Web Technology

Diploma/Associate of Applied Science (AAS)

The Web Technology program is a great opportunity to combine your artistic abilities with complex technological skills. The Associate in Applied Science (AAS) in Web Technology provides an understanding of the fundamental building blocks of web site creation and design. This includes the use of HTML, CSS, scripting to add functionality, server-side programming to handle web forms and allow interactions with database servers, plus digital image manipulation, audio, video, and animation to enhance the appearance and effectiveness of web content. This essential knowledge is ideally suited to those designing a web presence for small organizations with the goal of offering website visitors a more professional look and feel.

Program of Study

First Semester		Sem. Hrs.
CIS-256	Dreamweaver I	3
CIS-265	Photoshop 1	3
CIS-254	Basic Multimedia Design	2
CIS-253	HTML Basics	3
GRA-111	Vector Graphic I	2
GRA-176	Layout Design I	3
	Total Hours	**16**
Second Semester		
CIS-266	Photoshop 2	3
CIS-299	WordPress	3
CIS-260	Web Databases	3
GRA-115	Vector Graphic II	2
GRA-177	Layout Design II	3
ADM-258	Professional Development	1
+	Social Science/Humanities Elective	3
	Total Hours	**18**
	Diploma Total Hours	**34**

Students can graduate with a diploma in Web Technology after successful completion of first and second semester. Students can continue to third and fourth semesters to complete an Associate in Applied Science Degree (AAS).

Third Semester		
CIS-277	Portfolio 1	3
CIS-330	PHP/MySQL	3
CIS-352	Video Editing	3
MKT-110+	Principles of Marketing	3
ENG-105+	Composition I	3
	Total Hours	**15**
Fourth Semester		
CIS-278	Portfolio 2	3
CIS-262	Dreamweaver Projects	3
CIS-295	Advanced Web Design	3
BUS-112+	Business Mathematics*	3
+	English/Speech Elective	3
	Total Hours	**15**
Summer Session	**(Required)**	
BUS-932	Internship	2
	AAS Degree Total Hours	**66**

+Course satisfies general education requirement.

Graduation Requirement: Must pass all core program courses with the prefix CIS, GRA with a "C" or better.

Enrollment Date: Fall Semester
Minimum Required Credits: 34 (Diploma), 66 (AAS)
Campus: Fort Dodge
Department: Business
CIP#: 11.08010200

Welding Technology

Certificate/Diploma

The Welding Technology Program is designed to teach fundamental techniques and principles. The program also provides for an overview of related topics such as metallurgy and fabrication, layout, estimating, and repair. The first semester of the program is devoted to learning about and practicing basic welding techniques. The second semester provides students an opportunity to develop additional welding skills and learn advanced techniques. Upon successful completion of the Welding Technology program, students will be awarded a diploma in Welding Technology.

Program Study: Diploma

First Semester		Sem. Hrs.
MAT-743+	Technical Math*	3
IND-126	Precision Measurements Lab	1
IND-127	Shop Operations	1
WEL-110	Welding Blueprint Reading	2
WEL-213	Fabrication, Layout, Estimating and Repair	2
WEL-122	Beginning Welding	2
WEL-170	Shielded Metal Arc Welding	2
WEL-181	Gas Metal Arc Welding	2
MFG-266	Introduction to Mill Operations	2
	Total Hours	**17**

Second Semester		
WEL-171	Advanced Shielded Metal Arc Welding**	2
WEL-214	Adv. Fabrication and Layout**	2
WEL-190	Gas Tungsten Arc Welding	2
WEL-301	Pipe Welding**	2
WEL-340	Maintenance Welding**	2
WEL-178	Advanced Gas Metal Arc Welding (MIG)**	2
WEL-196	Advanced Gas Tungsten Arc Welding (TIG)**	2
IND-184	Mechanical Processes	2
MFG-256	Introduction to Lathe Operations	2
	Total Hours	**18**
	Diploma Total Hours	**35**

Optional		
WEL-710	Robotic Welding	3
MFG-238	Machine Processes	2
MFG-257	Advanced Lathe	2
IND-314	Computerized Maintenance Management Systems	1
BUS-114	Workplace Communications	3
BUS-113	Workplace Readiness	1.5
IND-110	CPR, First Aid and Safety	1

Welding Certificate:

WEL-181	Gas Metal Arc Welding	2
WEL-213	Fabrication, Layout, Estimating and Repair	2
WEL-122	Beginning Welding	2
WEL-110	Welding Blueprint Reading	2
IND-127	Shop Operations	1
	Certificate Total Hours	**9**

Pipe Welding Certificate:

WEL-190	Gas Tungsten Arc Welding	2
WEL-170	Shielded Metal Arc Welding	2
WEL-299	Pre-Pipe Welding	2
WEL-301	Pipe Welding**	2
	Certificate Total Hours	**8**

Production Welding Certificate:

WEL-122	Beginning Welding	2
WEL-110	Welding Blueprint Reading	2
WEL-181	Gas Metal Arc Welding	2
	Certificiate Total Hours	**6**

Welding and Fabrication Certificate

WEL-110	Welding Blueprint Reading	2
WEL-213	Fabrication, Layout, Estimating and Repair	2
WEL-122	Beginning Welding	2
WEL-170	Shielded Metal Arc Welding	2
WEL-181	Gas Metal Arc Welding	2
IND-126	Precision Measurements Lab	1
IND-127	Shop Operations	1
MAT-743	Technical Math*	3
	Certificate Total Hours	**15**

**Course may be substituted with a course from the same category as indicated in the approved general education course list.*

***Pre-requisites:*
WEL-171 Adv. Shielded Metal Arc Welding pre-requisite is WEL-170 Shielded Metal Arc Welding
WEL-214 Advanced Fabrication pre-requisite is WEL-213 Fabrication, Layout Estimating & Repair and co-requisite is WEL-122 Beginning Welding
WEL-301 Pipe Welding pre-requisite is WEL-170 Shielded Metal Arc Welding, WEL-190 Gas Tungsten Arc Welding
WEL-340 Maintenance Welding pre-requisite WEL-122 Beginning Welding
WEL-178 Advanced Gas Metal Arc Welding pre-requisite is WEL-181 Gas Metal Arc Welding
WEL-196 Advanced Gas Tungsten Welding pre-requisite is WEL-190 Gas Tungsten Arc Welding

+Course satisfies general education requirement.

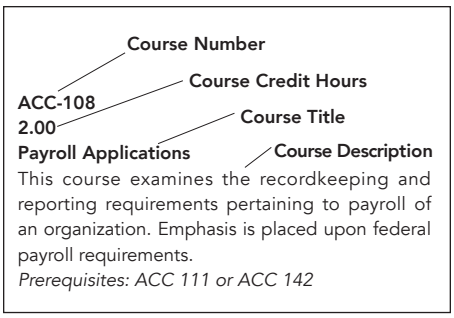
Program Requirement: Must pass all core program courses with the prefix WEL with a "C" or better for the semester prior to the one in which they are currently enrolling with a "C" or better. Any exception will have to be approved in writing by the Program Coordinator or Division Dean.

Graduation Requirement: Must pass all core program courses with the prefix WEL with a "C" or better.

Because of changes in technology, students taking programs over an extended period of time may be advised to retake courses to update skills and competencies.

Enrollment Date: Fall Semester
Minimum Required Credits: 35
Campus: Fort Dodge
Department: Industrial Technology
CIP#: 48.05080100

COURSE DESCRIPTIONS



This course examines the recordkeeping and reporting requirements pertaining to payroll of an organization. Emphasis is placed upon federal payroll requirements.
Prerequisites: ACC 111 or ACC 142

ACCOUNTING

ACC-102
3.00
Workplace Accounting
This course serves as an introduction to accounting that is used directly in the operation of small business. Topics covered will include an introduction to general ledgers, payroll accounting, computerized accounting, tax accounting as well as inventory management and cost accounting.

ACC-108
3.00
Payroll Applications
This course offers the student the opportunity to learn about the function of federal payroll concepts, taxes, and laws.
Prerequisite(s): ACC-142 or ACC-111

ACC-111
3.00
Introduction to Accounting
Students will receive instruction in analyzing and recording various business transactions and in completing the accounting cycle by journalizing, posting, preparing worksheets, making adjusting and closing entries, and preparing financial statements for service and merchandising businesses. Instruction will be provided for accounting for cash by using a petty cash fund, reconciling a bank statement, and utilizing the cash short and over account; calculating and journalizing employees' payroll; and calculating and journalizing employer payroll taxes. No previous accounting instruction is necessary. Computer may be utilized.

ACC-142
3.00
Financial Accounting
This course emphasizes corporate accrual-basis accounting procedures including: the accounting cycle, inventory evaluation, internal control, fixed and tangible assets, payroll, debt and equity accounting, preparation of financial statements, and financial statement analysis. Classroom instruction will include usage of computers.
Recommended Prerequisite(s): ACC-111

ACC-146
3.00
Managerial Accounting
This course gives attention to corporation accounting especially as it relates to various aspects of cost accounting including an overview of job order and process costing accounting. Computers are used.
Prerequisite(s): C or better in ACC-142

ACC-211
3.00
Intermediate Accounting I
This course provides an in-depth study of the worksheet, balance sheet, income statement, and other supplementary statements and corporation procedures. Computers are used. This course is offered during the fall term only.
Prerequisite(s): ACC-146

ACC-212
3.00
Intermediate Accounting 2
This course provides an in-depth study of inventories; the acquisition, disposition, utilization, and impairment of property, plant and equipment; investments; current liabilities and contingencies; bonds and long-term notes.
Prerequisite(s): ACC-211

ACC-221
3.00
Cost Accounting
This course provides practical knowledge of cost accounting systems and procedures, including the purpose of cost accounting, job-order cost accounting, process cost accounting, and cost accounting as a management tool. Computers are used.
Prerequisite(s): ACC-146

ACC-266
3.00
Tax Accounting
This course provides an introduction to the federal tax structure, the federal revenue system, business and non-business income and deductions, tax credits, and capital gains and losses as they relate to individual income tax preparation.
Prerequisite(s): ACC-142

ACC-311
3.00
Computer Accounting
This course is designed to provide the student experience in handling automated accounting in a number of areas. These include general ledger, accounts receivable, account payable, payroll, depreciation, inventory and accounting statement analysis. Simulation of business and its activities are processed through the entire accounting cycle culminating in the various accounting reports. The applications will be done on a computer.
Prerequisite(s): ACC-111 or ACC-142

ACC-330
1.50
Computer Accounting-Peachtree
This course is designed to provide the student experience in handling automated accounting in a number of areas. These include General Ledger, Accounts Receivable, Accounts Payable, Payroll, Depreciation, Inventory and Accounting Statement Analysis. Simulation of business and its activities are processed through the entire accounting cycle culminating in the various accounting reports. The applications will be done on a computer utilizing the software program Peachtree.
Prerequisite(s): ACC-111, ACC-142

ACC-331
1.50
Computer Accounting - Quickbooks
This course is designed to provide the student experience in handling automated accounting in a number of areas. These include General Ledger, Accounts Receivable, Accounts Payable, Payroll, Depreciation, Inventory and Accounting Statement Analysis. Simulation of business and its activities are processed through the entire accounting cycle culminating in the various accounting reports. The applications will be done on a computer utilizing the software program QuickBooks.
Prerequisite(s): ACC-111, ACC-142

ACC-364
3.00
Excel for Accounting
This course is designed to provide the student experience in applying accounting knowledge and skills to Microsoft Excel. Topics covered include: Excel basics, using formulas (beginning, intermediate and advanced), formatting, template tutorial, working with tables, data analysis features, automating repetitive tasks, importing, exporting, and distributing data, customizing, financial accounting, management accounting, financial statements, inventory, payroll, depreciation, amortization, cost of goods manufactured, job order cost accounting, process costing, and cost-volume-profit analysis. The applications will be done on a computer.
Prerequisite(s): ACC-111 or ACC-142

ACC-701
3.00
Certified Bookkeeping Review
The course is designed to prepare students for successful completion of the Certified Bookkeeper National Certification Examination. Included in the course is a review of adjusting entries, correction of accounting errors, payroll accounting, depreciation, inventory, and internal controls and fraud prevention.

ACC-932
3.00
Internship
This course provides an opportunity to gain practical experience through on-site training in an approved business or governmental office. The actual training will be at the job site and will be under the supervision of a designated person in the business and will be coordinated by the Accounting Associate Program Coordinator.

ADMINISTRATIVE ASSISTANT

ADM-105
1.00
Introduction to Keyboarding
Students will learn to key alpha characters using the touch system for use on a personal level or as a basic skill. At the completion of this course, students are expected to key at a rate of 25 words a minute for one minute and three minutes with one or less errors per minute allowed using the touch method and without the use of the backspace key.

ADM-108
1.00
Keyboarding Skill Development
Students will have the opportunity to improve both speed and accuracy in their keyboarding skills.
Prerequisite(s): ADM-105 or ADM-112

ADM-112
3.00
Keyboarding
This course is designed to introduce students to keyboarding and word processing fundamentals. Emphasis is on the mastery of the keyboard, development of speed and accuracy, and production of formatted business documents using Microsoft Word.
Prerequisite(s): ADM-105

ADM-116
3.00
Keyboarding II
Students will be given the opportunity to process a variety of business documents using current formatting styles and different software applications. Emphasis will be on building keyboarding skills and increasing proficiency in Microsoft Windows and MS Office.
Prerequisite(s): ADM-112

ADM-131
1.00
Office Calculators
This course prepares students for mastery of both the 10 key electronic calculator and the computer keypad. Students will develop speed and accuracy and apply these skills in a variety of job simulations and applications.

ADM-142
3.00
Desktop Publishing
This course examines the basic concepts of creating page layouts and designs using desktop publishing software. A progressive sequence of computer publishing principles and skill-building activities will be presented. Students will have the opportunity to prepare various business publications that will include graphics and photos.

ADM-146
3.00
Integrated Applications
Building on previous courses, this course provides students with experience in integrating additional Microsoft applications through the use of real-world, online business and office entry-level activities.
Prerequisite(s): ADM-112 and ADM-116

ADM-148
2.00
Transcription
This course covers skill development in transcribing machine-dictated material into usable business documents. Emphasis will be placed on building speed and accuracy; improving written communication skills; applying punctuation, grammar, and spelling rules; using reference materials; and proofreading and correcting errors. This course is offered in the classroom and BIT Lab.
Prerequisite(s): ADM-112 or keyboarding ability at 35 words a minute

ADM-162
3.00
Office Procedures
This course is designed to provide students with the working knowledge of current office systems and equipment. Students will be introduced to the mechanics and operational methods of various office systems and equipment in varied business environments. Students will be exposed to various office layouts and physical environments.

ADM-180
3.00
Administrative Management
This course is designed to prepare students to identify basic contents and trends within business and office environments. Students will practice management skills, employee motivational strategies, problem-solving, and communication skills individually and as a team member. Human resource management, office environment issues and systems will also be explored.

ADM-258
1.00
Professional Development
This course is designed to provide a broad range of professional development opportunities for students. These opportunities will include but not be limited to areas of parliamentary procedure, meeting agendas and minutes, note taking and transcription of that note taking, resume building, interview skills, portfolio building, teamwork projects and finally career specific expectations and professionalism necessary to be successful in an Administrative Specialist career. This course will also provide opportunities for guest speakers and field trips to assist in demonstrating the important of professional development.

ADM-260
1.00
Personal Development
This course is designed to provide a broad range of personal development opportunities for students. These opportunities will include but not be limited to areas of personal hygiene and the importance of nutrition and fitness, business professional dress, business etiquette, time management/organization skills, teamwork projects and professionalism necessary to be successful in an Administrative Specialist career. This course will also provide opportunities for guest speakers and field trips to assist in demonstrating the important of professional development. A $15 fee will be added to the course for costs incurred during field trips.

ADM-297
1.00
Certification Preparation
Students will prepare for certification in Microsoft Office applications using online tutorials and practice designed to simulate the certification process.

ADM-941
2.00
Practicum
This course provides an opportunity to gain practical experience through on-site training in an approved office setting. The actual training on the job site will be under the supervision of a designated person in the business. The student must have taken/or be taking all courses required for the completion of the Administrative Specialist program.

ASSOCIATE DEGREE NURSING

ADN-405
6.00
Maternal Child Health Care
This course uses the nursing process and a developmental approach to build upon previous principles of Man, Health and the Environment as they affect Maternal Child Nursing. Emphasis is placed on health teaching, and providing care for complex problems of the obstetrical, newborn, and pediatric clients.
Corequisite(s): ADN-407
Prerequisite(s): PNN-621, PNN-622, PSY-121, BIO-151, BIO-168, BIO-173

ADN-407
2.00
Clinical Practicum 3
Provides an opportunity for students to apply Maternal-Child Health Care theory in the clinical setting with obstetrical, neonatal, and pediatric clients. The nursing process is utilized to plan individualized care. Emphasis is placed on comprehensive nursing interventions and teaching.
Corequisite(s): ADN-405
Prerequisite(s): PNN-621, PNN-622, PSY-121, BIO-151, BIO-168, BIO-173

ADN-465
5.00
Psychiatric Mental Health Care
This course focuses on the study and application of modern concepts of psychiatric and mental health care and effective interactions with others. The student will learn to respond therapeutically to a variety of clients including those with maladaptive behaviors through the utilization of the nursing process by applying the principles of psychiatric and mental health care. Self awareness and self knowledge are incorporated throughout the course.
Corequisite(s): ADN-466
Prerequisite(s): PNN-621, PNN-622

ADN-466
2.00
Clinical Practicum 4
This practicum provides an opportunity for students to utilize the nursing process in a variety of mental health care settings. A pass/fail grade is earned for this clinical course.
Corequisite(s): ADN-465
Prerequisite(s) or Corequisite(s): PNN-621, PNN-622

ADN-511
8.50
Adult Health Care
This course utilizes the nursing process to care for acute and chronically ill adults. It expands on knowledge previously obtained regarding principles of Man, Health, and the Environment as it affects nursing care during the adult life span. Emphasis is placed on comprehensive nursing interventions needed for complex health deviations.
Corequisite(s): ADN-512
Prerequisite(s): PNN-621, PNN-622

ADN-512
4.00
Clinical Practicum 5
This course provides an opportunity for students to apply Adult Health Care theory in the clinical setting with adult medical/surgical clients. The nursing process is utilized to plan individualized care.
Corequisite(s): ADN-511
Prerequisite(s): PNN-621, PNN-622;

ADN-805
1.00
Management in Health Care
This course focuses on leadership and managerial skills related to caring for a group of patients. Content areas include: organization, prioritization, health care delivery systems, group dynamics, change, health issues, and legal and ethical dilemmas as they affect nursing. The concepts of Man, Health and Environment as they affect the health care setting is explored. The transition from the student role to the RN practitioner is emphasized.

ADN-806
2.50
Clinical Practicum 6
This course provides an opportunity for students to apply management principles in organizing, prioritizing and delivering care to a group of clients in the clinical setting. An emphasis is placed on decision-making and managing care in a realistic work setting. A pass/fail is earned for this clinical course.

AGRICULTURE AGRONOMY

AGA-154
3.00
Fundamentals of Soil Science
Students will acquire basic identification skills related to plant development stages, plant diseases, insects, fertility deficiencies, weeds, and integrated pest management.

AGA-155
1.00
Fundamentals of Soil Science Lab
This Lab is designed to give students hands-on learning opportunities in discovering the complexities of soil. The emphasis is on "discovery" rather than recipe.
Prerequisite(s): AGA-154

AGA-271
3.00
Advanced Corn & Soybean Production
This course is a follow up to Principles of Crop Production and focuses on the in depth production and management of corn and soybeans in the Midwest. Some of the topics include tillage methods, planting procedures, weed, insect and disease identification, precision farming, nutrient requirements, and harvesting and storage.

AGA-380
4.00
Integrated Pest Management
Students will acquire basic identification skills related to plant development stages, plant diseases, insects, fertility deficiencies, weeds, and integrated pest management. This course provides a core background with attention to specialty topics in agricultural, forestry, and horticultural pesticide applicator certification. Students select certification categories and are eligible for pesticide applicator certification upon completion of course. Commercial certification emphasized.

AGA-390
3.00
Introduction to Renewable Resources
This course will present an overview of soil, water, plants, and animals as renewable natural resources in an ecosystem context. Concepts of integrated resource management, history and organization of resource management will also be introduced.

AGA-852
3.00
Principles of Crop Production
The course is a study of principles of plant, soil, and climate relationships and their impact on crop production and animal food supply worldwide. Other topics covered are plant identification, anatomy and growth, as well as tillage and planting, pest control, harvesting and storage.

AGRICULTURE - FARM MGT

AGB-133
3.00
Intro to Agricultural Business
This course is an introduction to agribusiness management. It will emphasize the application of basic, practical business management skills in marketing, demand analysis, forecasting, production, finance, and leadership with a global perspective.

AGB-206
3.00
Farms Operations & Management I
Student participation in the operation and management of an actual Iowa farm. The class is responsible for the plans for the school-managed farm, record keeping, decisions on buying the farm's crops and participating in the actual planting of the crops, and arrangements for equipment and fertilizers. Outside speakers on current topics affecting the farm and agriculture will be utilized.

AGB-207
3.00
Farm Operations & Management II
Student participation in the operation and management of an actual Iowa farm. The class is responsible for the plans for the school-managed farm, record keeping, decisions on buying the farm's crops and participating in the actual planting of the crops, and arrangements for equipment and fertilizers. Outside speakers on current topics affecting the farm and agriculture will be utilized.

AGB-235
3.00
Introduction to Agriculture Markets
This course covers basic concepts and economic principles related to markets for agricultural products from the farm to the consumer's table. The course applies basic economic principles to analyze current issues in agricultural marketing. The course includes an overview of (1) markets for agricultural inputs and products, (2) farm and retail price behavior, (3) food marketing channels, and (4) hedging and futures markets.

AGB-330
3.00
Farm Business Management
This course focuses on business and economic principles applied to decision making and problem solving in the management of a farm business. Some of the topics include cash flow, partial, enterprise, and whole farm budgeting. Information systems will be used for farm accounting, analysis, and control. Obtaining and managing land, capital, and labor resources will also be covered in the course.

AGB-336
3.00
Agricultural Selling
This course in professional agricultural selling will concentrate most heavily on both theoretical and practical aspects of selling in an agricultural environment, but may be applicable to almost any area of non-agricultural selling. Many sales scenarios and audio-visual aids will utilize agricultural business examples.

AGB-934
3.00
Practicum
This course provides an opportunity for students to gain practical experience through on-site training in an approved agricultural-based business setting. The actual job site training will be under the supervision of a designated person in the Ag business. The student must have taken/or be taking all the courses required for the completion of the Agriculture Technology Program.

AGRICULTURE COMPREHENSIVE

AGC-129
3.00
Sustainable Agriculture
This course examines the social, economic, and scientific concepts relating to adding value to raw and processed agricultural products. The specific topics will include the agricultural impact on economics, cultures, social structures, technologies, and processing, products, nutrition and environmental issues resulting from adding value to agricultural products. Laboratory activities will provide opportunities for examining various technologies, evaluating products, examining nutritional advantages, assessing economic benefits to communities, and determining the environmental impact of various developments.

AGC-201
3.00
American Agricultural History
Students will learn about the History of American agriculture. In this course students will be exposed to some of the changes and challenges American agriculture has gone through starting in the 1850's through the present time. At the end of this course students will be able to relate to the similarities and differences of past and present day agriculture.

AGC-318
3.00
Field Studies/Career Opportunities
This course will provide students with field trips to agricultural businesses, College Ag facilities, operating farms, and livestock facilities. Students will also get a look at the various careers available to them in agriculture. Also in this class students will work on resumes, cover letters, and job interviewing skills. Along with future life/career planning.

AGC-940
3.00
On-The-Job Training
This course provides a second opportunity for the students to gain on-site work experience in an agricultural related occupation in the spring or fall. The agricultural community values and looks for these experiences when hiring new employees. Students will be under the supervision of a designated person in the agricultural business.

AGRICULTURE - EQUINE

AGE-219
3.00
Equine Science
Introduction to contemporary concepts, and basic practices and decisions necessary when managing horses through stages of their lives.

AGRICULTURE - HORTICULTURE

AGH-112
3.00
Introduction to Turfgrass Management
This is an introductory course discussing the establishment and maintenance practices used on turfgrasses, including plant classification, plant characteristics, warm and cool season grasses, soils and selection of turfgrasses for a site.

AGH-120
3.00
Herbaceous Plant Materials
This course will acquaint students with plant characteristics, culture and maintenance of hardy and tender perennials, groundcovers, annuals, and ornamental grasses, grown in Iowa and the upper Midwest.

AGH-124
3.00
Woody Plants/Trees
This course will develop the student's skills in the identification, characteristics, culture, and landscape use of trees, shrubs, and woody vines native to the upper Midwest.

AGH-141
3.00
Equipment Operations
This course will prepare the student to preform general preventative maintenance tasks on equipment used at turfgrass facilities, such as, changing oil, working with reel and rotary type mowers and training and safety of operators.

AGH-148
3.00
Home Landscaping
This fundamental course will present the student with basic landscape principles that can be utilized in a residential setting. Topics covered will include an introduction to landscape design, basic landscape construction, an understanding of different plants to incorporate into different landscape settings, and maintenance techniques to ensure a long-lasting landscape environment.

AGH-152
3.00
Landscape Design Technology
This course focuses on providing the student the foundation for good landscape design. The student will gain knowledge of landscape design tools and how they are used to graphically represent a landscape design, the landscape design process, creating a design from start to finish, and prepare landscape designs using a computer program.

AGH-156
3.00
Landscape Design II
This course identifies different steps in landscape construction. The steps covered include, preconstruction activities, reading construction documents, basic math, and the landscape construction.

AGH-161
3.00
Irrigation Systems
This course will give the student knowledge in landscape and golf course irrigation systems. Topics include irrigation equipment, piping, pump stations, water supply, design, installation and maintenance.

AGH-172
3.00
Landscape Maintenance
This course is intended to give the student valuable information in the maintenance area of landscaping. Topics range from different types of plants for different areas in a landscape, plant maintenance, lawn care, winterization, pest control and safety issues.

AGH-180
2.00
Turf Grass Facilities Mgt
This course will teach the student management skills specific to the turfgrass industry. The student will gain valuable information on the day-to-day operations at a turfgrass facility. A large part of the course deals with the human relations aspect of being a turfgrass manager.

AGH-211
3.00
Advanced Turf Grass Management
This course concentrates on practices that will promote a healthy turf area once the growth of grass has been initiated. The student will learn about pesticides, weeds, and insects. Also covered will be turf diseases and other problems, such as thatch or compaction, improving unsatisfactory turf, golf course and sports turf management, and business management practices.

AGH-221
3.00
Principles of Horticulture
The student will learn the applications of scientific principles to commercial horticultural practices, and how those practices can be improved. Topics covered include plant classification and structure, photosynthesis, soil management, plant growth substances, and plant pests.

AGH-255
1.00
Applicator License Prep
This course prepares the student for a commercial pesticide application license. The student will review the Iowa Core Manual along with ornamental and turfgrass management (Category 3OT), which identifies different plant development stages, plant diseases, insects, fertility deficiencies, weeds, and integrated pest management.

AGH-340
1.00
Turfgrass Professionalism
This course will give the students hands on experience working on a real life golf course. Students will work on equipment, provide general maintenance, as well as function as the grounds crew to enhance skills learned throughout their academic program.

AGH-350
1.00
Turfgrass Professionalism II
This course will give the students hands on experience working on a real life golf course. Students will work on equipment, provide general maintenance, as well as function as the grounds crew to enhance skills learned throughout their academic program. This course is an extension of Professionalism I, which provides the students more valuable training on the golf course.

AGH-805
3.00
Horticulture Internship 1
The student will participate in an internship at turfgrass facility. The internship will give the student valuable hands-on experience under the supervision of a professional turfgrass manager. This course is taken by students in the turfgrass management program during the summer. The student is required to work 180 hours to complete the internship.

AGRICULTURE - MECHANICS

AGM-101
1.00
Ag Diesel Tractor Equipment Maintenance
This course allows students to learn the basics of agricultural diesel maintenance techniques in which they can take back to the farm or industry. This class will cover basic repair procedures such as threading, soldering, welding, and cutting. Diesel en

AGRICULTURE - PRECISION AG

AGP-330
3.00
Advanced GPS
This course is designed for students who have successfully completed Introduction to GPS. Students will be able to evaluate yields, prescribe fertilization rates, and predict yield risks by real data taken through a number of input, analysis, and visualization steps.
Prerequisite(s): AGP-336

AGP-336
3.00
Precision Agriculture
Students will be introduced to site specific agriculture by the use of Global Positioning Satellites. Students will be able to evaluate yields, prescribe fertilization rates, and predict yield risks by real data taken through a number of input, analysis, and visualization steps

AGRICULTURE - ANIMAL SCIENCE

AGS-113
3.00
Survey of the Animal Industry
The course explores issues impacting the United States and the international animal industry. The main emphasis of the course is on different breeds, basic management, and marketing of farm animals. The animals include beef and dairy cattle, companion animals, horses, poultry, sheep, swine, and their products.

AGS-308
3.00
Livestock Management
In this course students will learn and be able to demonstrate various livestock management practices with various types of livestock such as Beef Cattle, Swine, and Chickens. These management principles will be practical to real life situations such as livestock restraint, health management, proper castrating, weaning procedures, shorting, feeding, and many more.

AGS-401
3.00
Swine Production
This course allows students to learn modern swine production and management techniques in which they can take back to the farm or into the swine industry. Some of the topics include biology of the pig, nutrition and feeding, housing, management of pig health, and marketing.

AGS-553
3.00
Beef Production
This course allows students to learn modern beef production and management techniques in which they can take back to the farm or into the beef industry. Some of the topics include commercial cow-calf management, feedlot management, the global beef industry, reproduction, and nutrition.

ANIMATION

ANI-105
3.00
Introduction to Animation
Introduction to Animation teaches the foundational principles, methods, and techniques of 2D, or hand-drawn animation through the completion of numerous projects culminating in a final project that demonstrates all previous knowledge. The successful completion of this course will prepare students for more advanced animation techniques and courses.

ANI-130
3.00
Technical & Character Animation
This course is a continuation of the study of the processes, techniques, methods and concepts associated with 2D, or hand-drawn, animation. Coursework will build upon previous knowledge of animation techniques including weight, balance, exaggeration, and timing as well as introduce new concepts of secondary motion, lip sync, and character.
Prerequisite(s): ANI-105

ANTHROPOLOGY

ANT-105
3.00
Cultural Anthropology
The development of culture, the origins of man, and concepts and techniques for understanding world cultural similarities, differences, and diffusion are studied.

ART

ART-101
3.00
Art Appreciation
This introductory course includes a survey of the themes, materials, and processes associated with the visual arts. Students will develop an understanding and appreciation of art history, art theory, and studio art. Students will develop cultural literacies by interpreting works based on historical and thematic contexts.

ART-111
1.00
Exploring Design
This course introduces students to basic design theory and context by examining the influence of design on our world. The impact of cultural and historical influences on contemporary thought and trends will be explored. The practical application of design theory will be evaluated via the examination of a variety of fields, including product design, graphic design, architecture, art, landscape design, and fashion. Personalized projects allow students to demonstrate design principles and formulate plans for practical application. Via self- and class critiques, students will evaluate their own work and that of their peers. Required participation in the college art show.

ART-115
3.00
Graphic Design
This course will be a general survey of graphic design concepts and techniques. This course instructs the student in graphic design skills employing traditional and digital tools, materials and procedures employed in the visual communication arts industry. The focus will be on finding creative visual solutions to communication problems using technical skills. Participation in college art show is required.

ART-116
3.00
Graphic Design II
This course is a continuation of Graphic Design. Students will continue to explore legal and ethical issues, career opportunities, graphic design methods, design elements, design principles, page layout, typography, color theory, and forms of published media. Participation in the college art show is required.
Prerequisite(s): ART-115

ART-131
3.00
Digital Publication Design
Publication Design is an introduction to the theories and principles related to publication design. This course is the application of design fundamentals for single and multipage publications. Students will utilize industry standard page assembly software while creating well-designed layouts for publications of all kinds. In addition to the functions of the software, topics include typography, graphics, color, aesthetic page flow, and transition design.

ART-133
3.00
Drawing
This introductory course focuses on the fundamentals of life drawing and development of visual observation skills. Emphasis is placed on the examination of space and form using a variety of drawing materials, including graphite, ink, and charcoal. Students will learn to use line, gesture drawing, and value. The subject matter of drawing projects and sketchbook assignments include the still life, human figure, and perspective. Via self- and class critiques, students will evaluate their own work and that of their peers. Required participation in the college art show introduces students to proper presentation and framing methods. Students do not need prior drawing experience.

ART-134
3.00
Drawing II
Students will continue to hone the life drawing skills developed in Drawing. Technical proficiency with graphite and charcoal will be increased, while wet media (washes, ink) and color media (pastels, color pencils) will be introduced. Subject matter of life drawing projects will refine visual observations, and include the human figure, portraiture, self-portraiture, landscapes, and the still life. Abstracted compositions will allow students to experiment with drawing as a tool for visual expression. All drawing projects and sketchbook assignments will encourage the development of a personal visual style. Students will explore the work of both historical and contemporary artists. Via self- and class critiques, students will evaluate their own work and that of their peers. Participation in the student art show is required.
Prerequisite(s): ART-133

ART-139
1.00
Introduction to Painting
This course introduces students to basic painting materials and techniques. After selecting acrylics, oils, or watercolors or as a focus, students will experiment with a variety of supports and paint application methods. The techniques of the masters will be explored and applied to painting projects. Via self- and class critiques, students will evaluate their own work and that of their peers. Required participation in the college art show.

ART-143
3.00
Painting
This course introduces students to the fundamentals of painting in several media, including oil paint, acrylics, and watercolor. Students will learn to build their own painting supports (canvases) and use a variety of painting tools. Paint application techniques will be explored, from glazing to impasto. Color theory will be used to develop color mixing techniques. Subject matter of painting projects include still life, portraits, landscapes, and non-objective compositions. Students will explore the work of both historical and contemporary painters. Via self- and class critiques, students will evaluate their own work and that of their peers. Required participation in the college art show introduces students to proper presentation and framing methods. No prior experience required.

ART-144
3.00
Painting II
Students will continue to hone the skills developed in Painting. A wider variety of painting supports will be utilized, including rigid supports such as wood panel. Specialized painting techniques will also be introduced, such as masking, decals, palette knife painting, and blending methods. Subject matter of paintings will include the still life, human figure, and landscapes. Additionally, each student will begin to develop a unique artistic voice through the use of more personalized subject matter and stylistic exploration. Via self- and class critiques, students will evaluate their own work and that of their peers. Required participation in the college art show.
Prerequisite(s): ART-143

ART-151
3.00
Design I
This course provides a foundation in visual design elements and principles, including line, shape, color, pattern, space, unity, and balance. Using non-digital art media such as cut paper, color pencil, ink, and collage, students will successfully organize design elements and principles to visually communicate ideas. Studio projects are presented as visual problems that require appliacation of design elements and visual critical thinking. The impact of design in a variety of fields will be explored, as well as the relationship between design and culture. Via self- and class critiques, students will evaluate their own work and that of their peers. Required participation in the college art show introduces students to proper presentation and framing methods. No prior artistic experience required.

ART-157
3.00
Printmaking
This course is an introduction to the fundamentals of the printmaking process. Through the exploration of a variety of printmaking media, students will develop an understanding of traditional and contemporary techniques. Students will learn both to run editions and create one-of-a-kind, experimental prints. Emphasis will be placed on relief and intaglio processes, including (but not limited to) woodcuts, calligraphy, dry point, and etching. Students will develop visual problem solving skills as they explore the possibilities offered by the graphic arts. In addition, the course will examine printmaking's role in historical and contemporary society.
Prerequisite(s): ART-133

ART-160
3.00
Typography
This course covers the art of the letterform, from its evolution to its use today in design communications. Students will learn how to use type in the most appropriate way possible to communicate effectively in print and on-screen.

ART-162
1.00
Introduction to Sculpture
This course will introduce students to the fundamental sculptural processes of addition, subtraction and substitution. Emphasis will be on students executing, understanding and discussing quality craft, successful composition, productive conceptualization and creative problem solving. Students will explore various sculptural methods and processes. Participation in college art show is required.

ART-163
3.00
Sculpture
This course will introduce students to three-dimensional sculptural processes. Students will develop and understanding of the interaction of form in space. Emphasis will be on students executing, understanding and discussing quality craft, successful composition, productive conceptualization and create solutions to assigned problems. Students will explore various sculptural methods and materials. Participation in college art show is required.

ART-168
1.00
Introduction to Ceramics
This course is designed as an introduction to techniques and practices in Ceramics. This course is intended for those studying ceramics for the first time and is a comprehensive introduction to the craft of clay working. Students will experiment with wheel throwing and various hand building processes. Participation in the college art show is required.

ART-173
3.00
Ceramics
This course will introduce the basic methods of designing, forming, glazing, and firing clay. The student will develop knowledge of good design as it relates to both function and expression. Using the techniques of coil, slab, pinch, and wheel, students will achieve an understanding of the historic and cultural significance of this art form. Participation in college art show is required.

ART-174
3.00
Ceramics II
Ceramics II is an intermediate level course focusing on application of the processes and aesthetics of hand building and/or throwing ceramic objects. Students will begin to concentrate on developing a personal style and acquire a more complete understanding of the fundamentals of ceramics. Participation in college art show is required.
Prerequisite(s): ART-173

ART-177
3.00
Metalsmithing and Jewelry Making
This course will introduce students to basic metalsmithing and jewelry making techniques. Students will be introduced to a variety of tools and techniques involved with metal forms and jewelry making. Students are expected to comply with safety measures. Emphasis will be on the originality of the piece, craftsmanship, and the creative and appropriate use of materials. Participation in the college art show is required.

ART-179
1.00
Introduction to Photography
This course is intended as a brief survey of basic camera operations, composition, and the documentation of photographic methods and procedures, including the digital refinement of photographic images. Students will use their own digital camera or may check one out from the college. Repeatable for credit.

ART-184
3.00
Photography
This course will explore basic techniques and artistic concerns involved in creating photographs through a combination of lecture, demonstration, and hands-on exercises. Student will be introduced to the Elements of Art and Principles of Design needed for successfully creating photographs including basic layout and design, color theory, shape, form and composition. Students will learn to use a DSLR (Digital Single Lens Reflex) camera in manual mode. Emphasis is placed on properly exposing a photograph focusing on aperture, shutter speed, and ISO. A basic introduction of image editing software will be included in the course. Via self- and class critiques, students will evaluate their own work and that of their peers. Required participation in the college photography show. Students will be introduced to proper presentation and framing methods. Students do not need prior photography experience.

ART-187
3.00
Creative Photography
Students will explore non-traditional photographic techniques, historical methods, and mixed-media processes that incorporate photographic images. Personalized projects will allow experimentation with a variety of materials, which may include found images, collage, textiles, and photo transfers. Contemporary artists working in the field of creative photography will examined. Via self- and class critiques, students will evaluate their own work and that of their peers. Required participation in the college art show.
Prerequisite(s): ART-184

ART-191
1.00
Darkroom Photography
This course covers basic darkroom concepts and procedures. Students will learn to shoot with 35mm film cameras, develop roll film, make enlargements, and create full-sized negatives for contact processes. Students will learn to apply basic design elements and principles to their photographs. Via self- and class critiques, students will evaluate their own work and that of their peers. Required participation in the college photography show.
Prerequisite(s): ART-184

ART-203
3.00
Art History I
This is an introductory course to the painting, sculpture, and architecture of the Western World from the Stone Age to the Gothic period. You will study the development of regional and personal styles, and the social contexts for which art objects have been created.

ART-204
3.00
Art History II
This is an introductory course to the painting, sculpture, and architecture of the Western World from the "Dawn of Individualism" in the 14th century to the Contemporary period. Students will study the development of regional and personal styles, and the social contexts in which art objects have been created.

ART-210
3.00
Museum Studiesý
This course provides a behind-the-scenes view of museums from the people who are actively involved in their operation. Students learn about the history and objectives of various types of museums (art, natural history, science, historical) through panel discussions that involve museum directors, curators, conservators, collection managers, and exhibit designers. Coursework will provide students with an opportunity to continue inquiry and creative work in art history, education, and community arts. Students will learn about special exhibitions and the museum's collection through gallery talks, lectures, and studio programming. Students will explore ways in which to work with intergenerational learners. Students will complete various tasks related to museum initiatives. Students will collaborate with industry experts in assisting is daily museum operations, taking part in special projects, and research opportunities. Students are expected to not only gain valuable skill sets and learn first-hand of workplace interactions, but also gain further insight into the professions of museums as an educational institution.

ART-295
1.00
Portfolio Preparation and Development
Students will prepare a visual arts portfolio that can be used for application into four-year art programs at other institutions, or as a tool for entering a career in the visual arts. Students will assess and select artworks for the portfolio, learn to photograph their work, and professionally present both digitally and non-digitally. Internet and app-based portfolio tools will also be explored.

ART-929
2.00
Individual Projects
1, 2, 3, or 4 credit hours - Highly motivated students may wish to work intensively on a creative or research project. The student should possess the necessary background for such works and should initiate an application for such study. A student must obtain written permission from the supervising staff member to enroll in this course.

ART-932
1.00
Internship
Students will be guided through the process of developing a proposal that will allow the student to work in the community on a project related to the visual arts. The project will be individualized to meet specific professional goals while building relationships with community members who are active in the arts.

ART-949
1.00
Special Topics
1, 2, 3, or 4 credit hours. This course, offered usually on a limited basis, provides an in-depth study on a topic of general interest pertaining to this department.

AMERICAN SIGN LANGUAGE

ASL-131
3.00
American Sign Language I
This course is designed to provide students with an introduction to American Sign Language (ASL) and the Deaf Culture in America. Focus is on building sign vocabulary, finger spelling, grammar, and syntax rules, facial expressions, use of personal space, and the development of sensitivity and awareness of the Deaf Community in America. The student is expected to acquire basic signing skills and sign vocabulary.

ASL-161
3.00
American Sign Language II
This course continues the study and practice of basic skills initiated in ASL I. The course is focused on vocabulary building, finger spelling, facial expressions, body language, use of personal space, and the development of sensitivity and awareness of the Deaf Community in America. Students will learn to sign at a conversation level both expressively and receptively.
Prerequisite(s): C or better in ASL-131

ASL-949
3.00
Special Topics
This course, offered usually on a limited basis only, provides an in-depth study on a topic of general interest pertaining to this department.

AUTOMATION TECH AND ROBOTICS

ATR-253
3.00
Robotic Programming
This course introduces students to the terminology, movements, & the physical construction of the robot and the applications for which they are used. Basic robot programming is studied as well as hands-on programming laboratory activities.

ATR-265
3.00
Robotics and Automation
This course establishes a firm foundation in Industrial Robotics. The major electronics and mechanics of common robots will be covered. Robot types, typical applications, cell structure, and end-of-arm tooling will be presented as well as programming multi-axis robots in a labroatory setting.

ATR-270
2.00
Vision Systems
This course introduces students to sensors and cameras used to control industrial robots in an automated manufacturing setting. Students will be introduced to vision system technology using up-to-date methods to select, identify, and install cameras, proximity sensors, and other solid state components.

AUTOMOTIVE TECHNOLOGY

AUT-108
3.00
Introduction Transportation Technology
This introductory course provides an introduction to the many facets of the automotive industry, to include: careers affecting the automotive industry, environmental concerns affecting the automotive industry, basic automotive hand tools, specialty tools, precision measuring tools, power tools and shop equipment, using service and shop manuals, and shop safety.

AUT-121
1.00
Small Engines
This course will consist of classroom and lab instruction covering the theory of operation, disassembly, and reassembly of a one cylinder internal combustion gasoline engine. The engines will be operationally tested prior to disassembly and after reassembly.

AUT-130
1.00
Auto Maintenance/Inspection
This introductory course provides an introduction to the many facets of the automotive industry, to include: careers affecting the automotive industry, environmental concerns affecting the automotive industry, basic automotive hand tools, shop equipment, using service and shop manuals, and shop safety. Lab exercises will include but not limited to the following: Vehicle inspections, brake service, tire repair, engine tune-up, and fluid and filter replacement.

AUT-164
4.00
Automotive Engine Repair
This course will consist of classroom and lab instruction covering the theory of operation, disassembly, measurement, and reassembly of internal combustion gasoline and diesel power plants. When possible, power plants will be operationally tested prior to disassembly and after assembly.

AUT-172
2.00
Adv. Engine Repair
This course provides an in-depth analysis of the gasoline engine to include diagnosis of head gaskets, timing chains/belts, valve adjustments, engine noises, and on car internal engine diagnosis.

AUT-205
5.00
Automatic Transmissions and Transaxles
This course covers automatic transmission/ transaxle theory and repair. Students will receive classroom and lab instruction on the inspection, disassembly, reassemble, and operational testing of the automotive transmission. This course also covers an in depth analysis of computer controlled transmissions and transaxles.

AUT-304
4.00
Automotive Manual Drive Train and Axles
This course covers manual transmissions, trans-axles, transfer case, four wheel drive systems, and rear axle theory and repair. Students will receive classroom and lab instruction on the inspection, disassembly, reassembly, and operational testing of the automotive transmission.

AUT-404
4.00
Automotive Suspension and Steering
This course will provide an in-depth analysis of operation and service of automotive chassis and suspension systems. Emphasis will be placed on the principles of steering components, steering geometry, inspection and replacement of components, and the principles of two and four wheel alignment. Students will learn the inspection of steering and suspension components, steering geometry and adjustment procedures.

AUT-503
3.00
Automotive Brake Systems
The course covers the latest procedures of inspecting, measuring, diagnosing, and the repairing of drum and disc brakes. Classroom and lab instruction will be utilized to teach students the latest procedure for inspecting, measuring, diagnosing and repairing the modern brake systems in use today.

AUT-538
1.00
Advanced Braking Systems
Students will learn in-depth analysis of automotive brake systems used in today's vehicles to include anti-lock brakes, traction control, and stability control. Students will also be instructed on the theory and operation of wheel bearings. Students will be tested on the theory and operation of anti-lock brakes, traction control, wheel bearings, and stability control.

AUT-610
4.00
Automotive Electrical I
This introductory course covers basic electronic theory and utilization of electrical measuring instruments. Emphasis will be placed on the application of Ohm's Law and the proper utilization of electronic test equipment including instrument selection, interpretation of results, and maintenance of equipment. Students will receive classroom and lab instruction on the diagnosis and repair of batteries, starting and charging systems.

AUT-654
4.00
Automotive Advanced Electrical
This course will provide an in-depth analysis of the automotive electrical systems utilized in the modern automobile. Students will receive classroom and lab instruction on the electrical theories and its application in instrumentation, accessories, air bag systems, and hybrid electrical systems.

AUT-656
4.00
Automotive Electrical II
This course covers electrical and electronics systems and its application in the modern automobile. Students will receive classroom and lab instruction on electrical theories, principles, and its use in the automobile. Electrical components necessary for the operation of the automobile will be disassembled, tested, reassembled, and operationally tested. Emphasis will be made on reading wire diagrams, understanding relays and modules, voltage drops, and the lighting of the vehicle.

AUT-658
3.00
Auto Electrical II
This course covers electrical and electronics systems and its application in the modern automobile. Students will receive classroom and lab instruction on electrical theories, principles, and its use in the automobile. Electrical components necessary for the operation of the automobile will be disassembled, tested, reassembled, and operationally tested. Emphasis will be made on reading wire diagrams, understanding relays and modules, voltage drops, and the lighting of the vehicle.

AUT-659
3.00
Automotive Advanced Electrical
This course will provide an in-depth analysis of the automotive electrical systems utilized in the modern automobile. Students will receive classroom and lab instruction on the electrical theories and its application in instrumentation, accessories, air bag systems, and hybrid electrical systems.

AUT-703
3.00
Automotive Heating and Air Conditioning
This course will place emphasis on the principles of air conditioning including theory of operation, maintenance, diagnosis, repair, and Freon recovery. Students will receive instruction on servicing air conditioning systems including system charging, operational testing, troubleshooting, repair and environmental concerns.

AUT-704
4.00
Automotive Heating and Air Conditioning
This course will place emphasis on the principles of heating and air conditioning including theory of operation, maintenance, diagnosis, repair, and Freon recovery. Students will receive instruction on servicing heating and air conditioning systems including system charging, operational testing, troubleshooting, repair, and environmental concerns.

AUT-801
4.00
Engine Performance
This course is an overview of the Engines, Electrical II, Ignition, and Fuel classes. Students will review Theories, operation, and test procedures in Engines, Ignitions, Fuel systems, and emission control systems. Students will be instructed in new diagnostic procedures and have to diagnose vehicles with Engine, Ignition, and Fuel related problems.

AUT-811
4.00
Auto Engine Performance II
This course will provide an in-depth analysis of the various electrical systems utilized in the modern automobile. Students will receive classroom and lab instruction on electrical theories and its application to the computer controlled systems. Emphasis will be placed on computer controlled engine controls, emission control systems, computer networking/communications, and the use of automotive scan tools.

AUT-828
4.00
Automotive Ignition Systems
This course covers automotive ignition system theory, diagnosis, and repair. Students will receive classroom and lab instruction on theory, diagnosis, and repair of ignition systems. Students will do hands on testing on the theory and operation of ignition system components.

AUT-831
3.00
Diesel Hybrid
This course will provide an in-depth analysis of the various electrical, mechanical, and fuel systems utilized in the modern automotive diesel and hybrid vehicles.

AUT-835
4.00
Auto Fuel Systems
This course covers automotive fuel systems theory, diagnosis, and repair of electronic fuel injection systems. Students will receive classroom and lab/ instruction on the theory, diagnosis, and repair of electronic fuel injection systems. Students will be tested on the theory and operation of fuel injection systems.

AUT-856
1.00
Scan Tools
This is an introductory class designed to educate automotive students on the importance, and use of automotive scan-tools. Students will demonstrate the use of the most common scan-tools used in the industry at this time.

AUT-879
1.00
Automotive Lab I
This course provides a review and analysis of the many facets of the Automotive Industry. To include established diagnostic procedures and routines, environmental concerns affecting the automotive industry; proper utilization of specialty tools, precision measuring tools, and shop equipment; utilization of service and shop manuals, and shop safety. This course will concentrate on reviewing the service areas in the automotive technology field to include operating in a simulated shop environment.

AUT-882
3.00
Automotive Lab II
This course provides an in-depth review and analysis of the many facets of the Automotive Industry. To include established diagnostic procedures and routines, environmental concerns affecting the automotive industry; proper utilization of specialty tools, precision measuring tools, and shop equipment; utilization of service and shop manuals, and shop safety. This course will concentrate on reviewing the eight specific service areas in the automotive technology field to include operating in a simulated shop environment.

AUT-949
3.00
Spec Top: Automotive
This course, usually offered on a limited basis only, provides an in-depth study on a topic of general interest pertaining to this department

BUSINESS COMPUTER APPLICATION

BCA-122
1.00
Basic Word Processing
This course is an introductory word processing course. Students will learn the basic features of Word that include creating, editing, and formatting documents in addition to creating and formatting tables. This course is delivered in the BIT Center.

BCA-124
1.50
Word
This course will assist students in learning word processing from concept to comprehension. The primary goal is to instill confidence, build the skills and insight necessary to master the software application, develop a basic understanding of the concepts behind each task, and comprehend how different applications are often used interactively to complete a variety of tasks. Familiarity with the keyboard is strongly recommended.

BCA-134
3.00
Word Processing
This course will assist students in learning word processing from concept to comprehension. The primary goal is to instill confidence, build the skills and insight necessary to master the software application, develop a basic understanding of the concepts behind each task, and comprehend how different applications are often used interactively to complete a variety of tasks. Ability to type by touch is strongly recommended. This course is offered in the BIT Center.

BCA-143
1.50
Spreadsheets
This course is an intensive study of speadsheets.
Prerequisite(s): CSC-110

BCA-146
1.00
Basic Spreadsheets
This is an introductory spreadsheets course. Students will learn the basic features of Excel that include creating, editing, formatting documents; working with charts; and working with formulas and functions. This course is delivered in the BIT Center.

BCA-162
1.50
Access
This course is an intensive study of database management systems.
Prerequisite(s): CSC-110

BCA-164
1.00
Basic Databases
This course is an introductory database course. Students will learn the basic features of Access that include opening a database, using tables and queries, using forms, using reports documents, and modifying the database structure. This course is delivered in the BIT Center.

BCA-174
1.00
Basic Presentation Software
This is an introductory presentation course. Students will learn the basic features of PowerPoint that include creating, modifying, enhancing, and customizing presentations. This course is delivered in the BIT Center.

BCA-185
3.00
Beginning Webpage Development
This course is for students who are interested in learning the fundamentals of web page creation using Microsoft FrontPage as a web editor to construct and maintain websites.

BCA-212
3.00
Intro to Computer Business Applications
This course is an intensive study of spreadsheets and database management systems.
Prerequisite(s): CSC-110

BCA-251
3.00
Publisher
This course introduces students to desktop publishing by having them create newsletters, brochures, e-mail letters, business forms and tables using Microsoft Publisher. Students will also learn creative ways to use color schemes, text-wrapping, clip-art and photographs throughout their projects.

BCA-252
3.00
Access for Business Applications
This course will assist students in learning databases from concept to comprehension. Students will learn the features of Access that include managing the access environment, building tables, building forms, creating and managing queries, and designing reports. Students will prepare for certification in Microsoft Access using a textbook, practice exercises, projects, tutorials, and practice exams designed to simulate the certification process. Iowa Central is a Microsoft Office User Specialist Certification testing center.
Prerequisite(s): CSC-110

BCA-254
3.00
Excel for Business Applications
This course will assist students in learning spreadsheets from concept to comprehension. Students will learn the features of Excel that include managing the worksheet environment, creating cell data, formatting cells and worksheets, managing worksheets and workbooks, applying formulas and functions, presenting data visually, sharing worksheet data with other users, analyzing and organizing data, and working with macros and forms. Students will prepare for certification in Microsoft Excel using a textbook, practice exercises, projects, tutorials, and practice exams designed to simulate the certification process. Iowa Central is a Microsoft Office User Specialist Certification testing center.

BCA-281
1.00
Intermediate Word
This course is an intermediate word processing course. Students will learn the features of Word that include graphics, web pages, mail merge, styles and templates, multi-page documents, and collaborating on documents.
Prerequisite(s): CSC-110 or BCA-122

BCA-282
1.00
Intermediate Excel
This is an intermediate spreadsheets course. Students will learn the features of Excel that include preparing worksheets for the Web, automating worksheet tasks, creating and analyzing lists, enhancing charts and worksheets, and setting up shared workbooks.
Prerequisite(s): CSC-110 or BCA-146

BCA-283
1.00
Intermediate Access
This is an intermediate database course. Students will learn the features of Access that include creating multiple tab queries, enhancing forms, analyzing data with reports, importing and exporting data, analyzing data design, and creating advanced queries.
Prerequisite(s): CSC-110 or BCA-164

BCA-284
1.00
Advanced Powerpoint
This course is an advanced presentation course. Students will learn the features of PowerPoint that include enhancing charts; embedding and linking objects and hyperlinks; customizing a slide show; publishing, packaging, and broadcasting a presentation. This course is delivered in the BIT Center.
Prerequisite(s): CSC-110 or BCA-174

BIOLOGY

BIO-102
3.00
Introductory Biology
An introduction to the science of biology. This course is designed for students who are not majoring in biology or health related fields. Topics include scientific method, diversity of life, genetics, evolution, and ecology. This course satisfies a general education requirement in the Math/Science area. Three hours lecture.

BIO-103
1.00
Introductory Biology Lab
This is an introductory laboratory in biology. Basic biological principles and theories will be used to investigate the natural world. Students will learn to plan, conduct, analyze, and interpret simple experiments in biology. Critical thinking will be a major emphasis throughout the lab. This course satisfies a general education requirement in the Math/Science area. Two hours lab.
Prerequisite(s): BIO-102

BIO-112
4.00
General Biology I
This course is the first of a two-semester sequence that introduces students to major ideas within the scope of modern biology. This course is designed for students majoring in science. Topics covered include cell structure and function, cell metabolism, genetics, gene expression, and evolution. Labs provide hands-on activities that help explain the lecture material. Three hours lecture, two hours lab.

BIO-113
4.00
Gen Biology II
This course is the second of a two-semester sequence that introduces students to all major concepts within the scope of modern biology. This course is intended for students majoring in science. Topics covered include organismal biology, comparative animal anatomy, ecology, and biotechnology. Laboratory exercises provide hands-on experiences that reinforce the lecture material. Three hours lecture, two hours lab.

BIO-151
3.00
Nutrition
The principles of human nutrition are studied in this course. This involves the metabolism of carbohydrates, lipids, and proteins. A study of vitamins, minerals, and water is also included. Emphasis is placed on proper nutrition during adulthood and proper diet in reference to disease. It is strongly recommended that BIO-112 General Biology I, BIO-168 Human Anatomy and Physiology I,or equivalent precede this course. Three hours lecture.

BIO-163
4.00
Essentials of Anatomy and Physiology
A study of the structure and function of the human body. The study begins at the molecular and cellular level and proceeds through the following body systems: integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive. This course is not equivalent to BIO-168 Human Anatomy and Physiology I. Three hours lecture, two hours lab.

BIO-168
4.00
Human Anatomy and Physiology I
A study of the structure and function of the human body. This course is the first course of a two-semester sequence. The study begins at the molecular and cellular level and proceeds through the integumentary system, skeletal system, muscular system, the central, and peripheral and autonomic nervous systems. At least one year of high school biology or chemistry or the equivalent is recommended. Three hours lecture, two hours lab.

BIO-173
4.00
Human Anatomy and Physiology II
The second course in a two-semester sequence. The study continues with the senses, endocrine system, blood and cardiovascular system, lymphatic system and immunity, respiratory, digestive, urinary, and the reproductive systems. Three hours lecture, two hours lab.
Prerequisite(s): BIO-168 with a C grade or better

BIO-186
4.00
Microbiology
This is a study of microorganisms with emphasis on bacteria and viruses along with an overview of fungi and protozoan. Topics covered include scientific method, classification, morphology, physiology, culturing techniques, identification, control, diseases, and host defense. It is designed for health-care majors.
Recommended Prerequisite(s): BIO-112 or BIO-168

BIO-948
1.00
Special Projects
This course is open to students showing satisfactory preparation in a particular area of interest. Involves individual topic, conferences and preparation of reports. Designed to meet the needs of students wishing to study a selected topic in depth. Permission of the instructor with whom the student wishes to work is required.

BIO-949
1.00
Special Topics
This course, offered usually on a one-time basis only, provides an in-depth study on a topic of general interest pertaining to this department.

BIOTECHNOLOGY

BPT-113
3.00
Process Instrumentation
Instrumentation, control loops and process control systems are presented in class and labs, to include process control loop training, process variables, analog and discrete signals, calibration errors, flow process and measurement, and temperature and pressure measurement.

BPT-120
3.00
Molecular and Cellular Biology
This is a study of the molecular structures and processes that underlie cellular functions. Topics include DNA, RNA, and protein synthesis, methods of isolation and purification of biological molecules, and relevant principles of microbiology, immunology, virology, and recombinant DNA technology. Offered alternating years during the fall semester. Three hours lecture.

BPT-129
3.00
Distillation and Evaporation Theory
This is an introduction to the fundamentals of distillation. Topics will include the basic principles behind the distillation of mixed composition solutions, the relationships between pressure, temperature, boiling point and vapor composition, and the construction and function of a basic distillation column. The laboratory portion of the course will provide hands-on experiences with the distillation of solutions under various conditions.

BPT-148
3.00
Biotechnology Methods I
This is an introduction to commonly utilized laboratory equipment and methods. Topics include media and solution preparation, instrument care and calibration, laboratory mathematics, record keeping, GMP/GLP regulations, and methods for isolating and purifying important biological molecules. This class will provide students with the background necessary for subsequent Biotechnology courses. One semester high school biology and chemistry or concurrent enrollment is recommended.
Corequisite(s): BPT-149
Prerequisite(s): BPT-162

BPT-149
1.00
Biotechnology Methods I Lab
This laboratory introduces commonly utilized laboratory equipment and methods. Knowledge from BPT-148 will be applied as students prepare media and solutions, utilize laboratory mathematics, maintain laboratory notebooks, and isolate and purify important biological molecules. Techniques covered include gel electrophoresis, restriction enzyme digestion of DNA, chromatography PCR and genetics. This class will provide students with the background necessary for subsequent Biotechnology courses. Two hours lab.
Prerequisite(s): BPT-148

BPT-152
4.00
Biotechnology Methods II
This course is a continuation of BPT-148 & 149 Biotechnology Methods I. Topics covered in BPT-148 & 149 are continued with more detail in this course. Topics covered in this course include applied enzymology, quantitative ELISA techniques, DNA microarrays, Polymerase Chain Reaction (PCR), electroporation and Southern blotting. Fermenter operations and process instrumentation control systems for fermenters are also included. Three hours lecture, two hours lab.
Prerequisite(s): BPT-148, BPT-149

BPT-154
4.00
Biotechnology Methods III
This course is a continuation of BPT-152, Biotechnology Methods II. Students will cover a variety of topics including qRT-PCR, mammalian tissue culture, microbial responses to the environment and how to enumerate viruses. Each student will also complete an independent study project over some topic of biotechnology. These projects will be presented to a panel of independent judges as a poster presentation session at the end of the semester. The poster that gets the highest rating from the judges will win. Two hours lecture, four hours lab.
Prerequisite(s): BPT-152

BPT-162
2.00
Introduction to Biotechnology
This course focuses on the basic principles of biology and chemistry that are the foundation of modern biotechnology. Topics include understanding the structure, function and measurement of the four basic macromolecules of life(i.e. proteins, nucleic acids, lipids and carbohydrates). Students then explore how these macromolecules combine into patterns that produce living cells and how these cells grow, metabolize and reproduce. Other topics include unit conversions using the factor label method, calculations for the preparation of chemical solutions and the use of standard lab equipment. Finally, the student will learn about modification of DNA and transformation of organisms along with some basic statistical methods to monitor lab quality. Two hours lecture.

BPT-163
1.00
Intro to Biotechnology Lab
This is a hands on course that gives the student introductory experience with a wide variety of lab procedures. Activities include the accurate and precise use of several types of lab equipment to measure biomolecules. This data is used in excel worksheets to create calibration charts for measurement of unknown samples. Students will also engage in the extraction, modification and measurement of DNA including an introduction to the use of restriction enzymes, ligase, plasmids, transformation, gel electrophoresis and PCR. Two hours lab.
Prerequisite(s): BPT-162

BPT-220
3.00
Biotechnology Workforce Readiness
This course will include four units. One unit covers job skills and is designed to provide a broad range of professional development opportunities for students. These opportunities will include resume building, interview skills, career specific expectations and professionalism necessary to be successful in a biotechnology career. A second unit provides an informal survey of the local, state and federal regulatory agencies that are involved with the biotechnology and biofuels manufacturing industries. This unit of the course will include guest lecturers from agency representatives, review of current literature, GMPs and implementation of HACCP programs. The third unit covers hazard identification, avoidance, control and prevention, OSHA compliance and regulations, safety and health training, first aid, and CPR. The fourth unit covers financial planning, budgets, preparation for retirement and some of the economic issues facing the biotechnology industry. Three hours of lecture.

BPT-300
4.00
Intro to Process Technology
The students in the process control course will be introduced to the industrial process control systems. The students will learn process control that is extensively used in industry and enables mass production of continuous processes such as oil refining, paper manufacturing, chemicals, power plants, and many other industries. The students will also be introduced to all the aspects of systems operations & how process control enables automation, with which a small staff of operating personnel can operate a complex process from a central control room.

BPT-305
2.00
Technical Diagrams
This course will cover the symbols and diagrams commonly used on Piping and Instrument Designs (P&ID) and Process Flow Diagrams (PFD). Focus will be on identifying the types of information typically found on a legend, using P&ID to locate components of a system, and reading a PFD to trace the flow paths of a system

BPT-310
2.00
Material Balance
The students in Material Balance (also called mass balance) course will be instructed on how all process systems follow the same principle rule the all the material entering the process system has to be accounted for when exiting the process system. The students will learn the formulas associated with material balance to account all the materials used in the process system. Finally, the students will be instructed in the science of waste water management.

BPT-315
3.00
Process Steam & Heating Sys
The students in the process steam systems class will be taught the principles of boiler operations and boiler control systems. The students will learn about the different components associated with a boiler system such as: steam traps, heat exchangers, low pressure, high pressure, condensate return, heating coils, pumps, and several more components used in the industrial heating process.

BPT-320
2.00
Process Cooling Systems
The students in the process cooling systems will learn about the industrial cooling process. The students will gain an understanding of chillers, cooling towers, cooling coils, and several more components used in the industrial cooling process.

BPT-325
2.00
Emission Control Systems
Introduction to types of pollutants, methods of monitoring and reporting requirements for electrical generating plants, as well as biofuels plants. Methods of controlling pollution and regulatory agencies are covered. Identification of the major sources of pollution, explanation of control devices used to minimize polluting emissions; the importance of reducing emissions, in compliance with State and Federal regulations will be discussed. Regulatory agencies overseeing permitting and enforcement procedures both state and federal will also be covered.

BPT-331
3.00
Dcs & Scada Control System
Students in this course will be taught about the wiring methods, data storage, I/o, HMI's, controllers, hardware and software components associated with DCS (Distributed Control System) & SCADA (Supervisory Control And Data Acquisition) systems.

BPT-335
2.00
Basic Fermentation
In this course the student is introduced to fermentation process control, sterilization and fermenter design. Topics include vessel sterilization, media sterilization, automatic control of pH, DO, temperature and defoam addition. The modes of batch, fed-batch and continuous fermentation will be compared. The impact of fermenter design features like height to diameter ratio, sparger design and agitator speed will also be studied. The course will also allow the students to understand the relationship between other unit operations and the fermentation process.

BPT-340
4.00
Advanced Process Technology
The program focuses on communication skills, team work and quality control, the way all of these tie together to make a quality process technician. With these trades we will work through troubleshooting and safety in multiple areas of the process industry.

BPT-932
4.00
Internship
The Biotechnology internship will allow the student to apply their knowledge gained from classroom instruction in a real-time manufacturing environment. The internship will be performed with the cooperation of area biotechnology or biofuels manufacturing facilities. 240 contact hours
Prerequisite(s): BPT-148, BPT-149, BPT-162, BPT-163, BPT-120, BPT-152

BUSINESS

BUS-102
3.00
Introduction to Business
This course is an introduction to the trends and opportunities in today's dynamic business environment surveying economics, global markets, social responsibility, ownership forms, entrepreneurship, management organization, marketing, accounting and financial management. Students who are interested in a career in business or want to further their knowledge of the business world would benefit from this course.

BUS-112
3.00
Business Math
The student applies basic mathematical skills used in personal and business operations. This course includes fractions, decimals, percent's, trade and cash discounts, markups, markdowns, interest, depreciation, investments, insurance, payroll, and annuities.

BUS-113
1.50
Workplace Readiness
This course introduces the concepts, tools, and strategies used to explore and obtain a job. Students primarily focus on job inquiries, application - letters and resumes, and interviewing skills working with the Iowa Central Career Center. Students will learn and demonstrate their ability to express themselves correctly, clearly, and effectively both in writing and orally for seeking and/or changing work positions. Students are introduced to workplace concepts in teamwork, conflict resolution, listening skills, and interpersonal relationships.

BUS-114
3.00
Workplace Communications
Workplace communications combines (BUS-113) Workplace Readiness's introduction to the job search process and skills with a solid understanding of the communication concepts and the skills required to ensure their success on the job. Students focus on communicating clearly, concisely, considerately, and correctly, both orally and in writing. Students demonstrate learned skills through an oral presentation, demonstration of giving, listening, and following directions; using a businesslike manner in person and digitally, both individually and within a group; with coworkers and customers ethically and with integrity.

BUS-121
3.00
Business Communication
This course introduces students to the fundamental principles of business communications and provides the opportunity to develop and practice communication skills; both written and oral. A simple three-step writing process that works for all types of writing/speaking projects, for school and work, addresses the strategies for today's communication challenges, including the job search. Business communication differs from personal and social communication in addressing business use of email, blogs, social networks, podcasts, and other technologies professionally in marketing, servicing, and creating strong business relationships.

BUS-130
3.00
Intro to Entrepreneurship
This course is an introduction to the creative and innovative managerial practices of successful entrepreneurship. Reviewing the significant economic and social contributions entrepreneurs provide to society, the intense lifestyle commitment and the skills necessary for entrepreneurial success. Provided is an overview of the entrepreneurial process of researching, writing and presenting a business plan that describes the product features, market opportunity, customer profile, sales forecast, competitive advantage and profit potential.

BUS-135
3.00
Managing the Entrepreneurial Venture
This course is designed to give entrepreneurs the management skills necessary to maximize the likelihood of success and minimize the chance of failure. Students will be encouraged to interact with successful entrepreneurs and to conduct research outside the classroom.
Prerequisite(s): BUS-130

BUS-145
3.00
Financial Entrepreneurship
This class provides a straightforward practical overview of the business and financial knowledge required to become a successful entrepreneur. It examines the elements of entrepreneurial finance which addresses key questions that challenge entrepreneurs such as how much money can/should be raised, from whom, what the reasonable valuation of the company is, and how funding should be structured.

BUS-161
3.00
Human Relations
This course introduces students to the importance of human relations - summarized in one concise law of personal and organizational success: All work is done through relationships. Focusing on the interpersonal skills needed to be well-rounded and thoroughly prepared to handle a wide range of human relations issues, one's behavior at work and in our private lives is influenced by many interdependent traits such as emotional balance, self-awareness, integrity, self-esteem, physical fitness, and healthy spirituality. As a first exposure to a leadership role or a Human Resource Management career, the student explores the value of the non-technical work skills, history, theory, and the wide range of these skills needed in today's workplace.

BUS-180
3.00
Business Ethics
Many people, faced with their own interests and standards, need reliable guidelines to address the moral implications of ethical & business decisions. This course offers a unique practical approach to learning business ethics and focuses on the relationships among various stakeholders, including individuals, groups, corporations, and nations. Students will study the latest research, current cases, and practical examples to examine the role of ethics in the contemporary business world. Outcomes include real-world ethical dilemmas encountered by managers, implementing a stakeholder analysis, and comprehensive coverage of employee workplace issues such as risk management, preferential hiring, corporate legitimacy, and moral accountability. This course will give students the realistic tools needed to handle complex moral dilemmas in the workplace and the world.

BUS-185
3.00
Business Law I
This course provides an introduction to selected basic principles of law and related business law principles. The course content includes (but is not limited to) an introduction to contract law, criminal law, tort law, constitutional law, court systems, alternative dispute resolution mechanisms, anti-trust law, agency law, employment law, worker protection laws, and labor law. By the end of this course the student should be able to properly apply selected legal terms in given situations, determine proper types of dispute resolution methods to be used to resolve given situations, and assess, using pertinent legal principles, selected situations for appropriate legal outcomes(s).

BUS-186
3.00
Business Law II
This course provides an introduction to laws governing sales, commercial paper, secured transactions, banking, bankruptcy, real and personal property interests, various business entities (including but not limited to partnerships and corporations), insurance, wills, trusts, and family law matters. By the end of the course, students should be able to properly define and apply selected legal terms in given situations, determine proper types of dispute resolution methods to be used in given situations, and analyze/assess, using pertinent legal principles, selected situations for appropriate legal outcomes.

BUS-241
1.00
Developing Prof. & Ethical Practices
Are real estate agents really unethical? What are the ethical problems facing real estate practitioners today? Can ethics be taught? These are some of the questions addressed in the 15-hour program, "Developing Professionalism and Ethical Practices." In addition to meeting Iowa's licensing requirements, this course also satisfies NAR membership renewal requirements.

BUS-242
1.00
Buying Practices
This course will familiarize the students with buying practices such as qualifying buyers, financing, working with buyers, writing offers and responsibilities and services during closings.

BUS-243
1.00
Listing Practices
This course acquaints the student with the proper listing practices for residential real estate. In the course the students will cover: Steps to preparing a Competitive Market Analysis, estimating net proceeds, listing presentations and contracts, marketing and servicing listings, presenting offers and responsibilities and services during closings.

BUS-256
4.00
Real Estate Prelicensure
This course is accredited by the Iowa Real Estate Commission and has been approved for real estate salesperson pre-licensing. Upon successful completion of this course students will be prepared to sit for the Iowa real estate salesperson exam. Students will complete their homework utilizing a required workbook.

BUS-932
2.00
Internship
This course provides an opportunity to gain practical experience through on-site training in an approved business or governmental office. The actual training will be at the job site and will be under the supervision of a designated person in the business.

BUS-949
3.00
Special Topics
This course, usually offered on a limited basis only, provides an in-depth study on a topic of general interest pertaining to this department.

COMPUTER AIDED DRAFTING

CAD-101
3.00
Introduction to CAD
The student will be introduced to the use of Computer-Aided Drafting software to make drawings of various objects. Students will create and modify drawings, print hard copies, and change the drawing environment to meet task requirements.

CAD-138
2.00
Virtual Modeling I
Students will use computer software to develop three-dimensional digital models for use in graphics applications. Students will learn about working in computer aided design environments, including concepts and techniques of geometry construction and placement, lighting and appearance, and rendering.

CAD-155
3.00
Engineering Graphics I
This course will introduce the student to the standard industry practices for technical and industrial representation. Emphasis will be placed on understanding how edges and surfaces are represented using orthographic projection. Students will use computers to create technical drawings of mechanical components.

CAD-156
3.00
Engineering Graphics II
Coursework will build on basic skills and focus on using computer-aided design software to develop technical drawings. Topics will include advanced orthographics, auxiliary views, section views, representation of threading, and the application of fits & tolerancing in dimensioning.

CAD-157
3.00
Engineering Graphics III
Coursework will focus on using computer-aided design software to develop technical drawings using advanced view development techniques. Students will study and create advanced sections, auxiliaries, revolutions, and developments. Students will also learn to apply advanced dimensioning and tolerancing, develop dimensioning based on fits and allowances, and create assembly drawings.

CAD-158
2.00
Engineering Graphics IV
Students will complete the engineering graphics sequence by examining and applying design principles to technical drawings. Students will develop drawings of motion transmission elements, including cams, gears, and linkages. Topics will also include surveys of specialized areas of engineering graphics.

CAD-164
2.00
Solid Modeling I
The student will be introduced to the principles of parametric design using computer aided design software. Students will construct digital models by use of elements of geometry, modeling theory, and parametric workflow. Topics will include sketching, constraining, feature construction, combination modeling methods, and mating.

CAD-166
2.00
Solid Modeling II
Students will build on basic parametric skills. Students will explore the use of equation modeling, configurations, assembly techniques, sheet metal features, and advanced drawing features.

CAD-194
2.00
Architectural Modeling
Students will use computer software to develop digital representations of architecture and construction. Students will learn about working in computer aided design environments, including concepts and techniques of geometry construction and placement, dimensioning, and media preparation and presentation.

CAD-198
2.00
Applied Geometry & Technology
This course will examine the application of geometry in computer graphics. Students will study geometric principles, learn terms and concepts of plane and solid geometry, and apply them in problem solving. Students will also learn how to use calculators, computer algebra systems, and computer graphics software in solving geometry challenges.

CAD-217
3.00
Engineering Mechanics I
The student will learn and apply concepts of statics and dynamics to various design challenges. Students will use diagrams, calculations, and computers to construct simple designs under various loading conditions and analyze them for the effects of loading.

CAD-218
3.00
Engineering Mechanics II
The student will apply principles of kinematics to design & construct virtual models of mechanisms. Students will study principles of motion, path & trajectory analysis, linkages, and other motion transmission concepts commonly used in the mechanical industries. Students will also examine principles of fluids.

CAD-230
2.00
Geometric Dimensioning and Tolerancing
This course is designed to gain knowledge about quality control and applications of quality tools used in industry. The student will learn applications or statistical process control and its applications. Also covered Dr. Edward Deming and his 14 points for process improvement.

CAD-232
2.00
Virtual Modeling II
This is a course that will build on skills from Virtual Modeling 1. Students will learn about advanced surfacing methods, contrast and compare modeling paradigms, and learn about file exchange and management. Students will also use lab technology to create output.

CAD-275
2.00
Applied Logical Processes
Students will practice and build on the methods of problem solving. Students will utilize multiple skill sets in the problem solving process to collaboratively and independently identify goals and objectives, plan strategies, and design and execute solutions. Emphasis will be placed on research and development on projects. Students will present results for peer critique and public display.

CAD-315
2.00
Computational Design
This course is a programming course geared towards students in the various fields of design. Students will learn the methods and concepts involved in programming, and examine how programming is applied in real-world scenarios. Students will then use hands-on lab time to create programming, producing still and animated output.

CAD-401
3.00
Electrical Cad
The student will be introduced to the use of Computer-Aided Drafting software to make drawings of various electrical objects. Students will create and modify drawings, print hard copies, and change the drawing environment to meet task requirements.

CAD-949
1.00
Special Topics: Survey of Cad
This course, usually offered on a limited basis only, provides an in-depth study on a topic of general interest pertaining to this department

CHEMISTRY

CHM-110
3.00
Introduction to Chemistry
This course is a study of the basic principles of chemistry. Topics include measurements, atoms and molecules, stoichiometry, aqueous systems, gas laws, chemical reactions, equilibria, acids, bases, salts, and nuclear chemistry. A course such as this may be part of the requirements in certain health professions (nursing, dental and physical therapy), home economics, mortuary science, agriculture, forestry, and other related programs. This course is not equivalent to CHM-165 General Chemistry I. This course satisfies a general education requirement in the Math/Science area. Three hours lecture.

CHM-111
1.00
Introduction to Chemistry Lab
This is a two-hour laboratory which accompanies CHM-110 Introduction to Chemistry. This course satisfies a general education requirement in the Math/Science area. Two hours lab.
Prerequisite(s): CHM-110
Recommended Prerequisite(s) or Corequisite(s): CHM-110

CHM-130
3.00
Introduction to Organic and Biochemistry
This course is a study of organic chemistry and biochemistry. Topics in the course include structure, nomenclature, nature and reactions of the functional groups, stereochemistry, carbohydrates, proteins, lipids, nucleic acids, and metabolism. Three hours lecture.
Prerequisite(s): CHM-110

CHM-131
1.00
Intro to Organic and Biochemistry Lab
This is a two-hour laboratory which accompanies CHM-130 Introduction to Organic and Biochemistry. Two hours lab.
Prerequisite(s): CHM-130

CHM-165
4.00
General Chemistry I
This course is a study of the following topics: stoichiometry, atomic structure, solutions, acids-bases, and oxidation-reduction. This course is intended for science, engineering, pre-vet, pre-dental, and pre-optometry majors. This course satisfies a general education requirement in the Math/Science area. Three hours lecture, three hours lab.

CHM-175
4.00
General Chemistry II
This course is a continuation of CHM-165 General Chemistry I with consideration of states of matter, solutions, acids bases, reaction rates, equilibrium, thermodynamics, and electrochemistry. Three hours lecture, three hours lab.
Prerequisite(s): CHM-165 with a C grade or better

CHM-261
4.00
Organic Chemistry I
This course is a study of the principles of organic chemistry including structure, bonding, nomenclature, reaction mechanisms, synthesis, and spectroscopy of common organic compounds. This course along with CHM-271 Organic Chemistry II are designed to satisfy the one year of organic chemistry required by most medical schools. Three hours lecture, three hours lab.
Prerequisite(s): CHM-175 with a C grade or better

CHM-271
4.00
Organic Chemistry II
This course is a continuation of CHM-261 Organic Chemistry I. The structure, nomenclature, and chemistry of aromatic compounds and various functional groups, carbohydrates, lipids and proteins are considered. Bonding, synthesis, reaction mechanisms and spectroscopy are also emphasized. Three hours lecture, three hours lab.
Prerequisite(s): CHM-261 with a C grade or better

CHM-948
1.00
Special Projects
This course is open to students showing satisfactory preparation in a particular area of interest. Involves individual topic, conferences and preparation of reports. Designed to meet the needs of students wishing to study a selected topic in depth. Permission of the department chair and the staff member with whom the student wishes to work is required.

CHM-949
1.00
Special Topics
This course, offered usually on a one-time basis only, provides an in-depth study on a topic of general interest pertaining to this department.

CHEMICAL TECHNOLOGY

CHT-105
4.00
Applied Chemistry
This course will provide students with an understanding of chemistry as it applies to industrial processes, as well as an understanding of some basic concepts that are relevant in the industrial world.

COMPUTER PROGRAMMING

CIS-153
4.00
Data Structures
This course is a continuation of CIS-162 C++. It deals with the implementation of user-defined data structures including stacks, queues, linked lists, trees, heaps, and graphs. Object oriented features of C++ and recursion are used to help implement these data structures.
Prerequisite(s): CIS-162

CIS-162
4.00
C++
This is an introductory course in C++ which emphasizes the design and development of structured programs. All standard C++ topics are considered including input/output functions, logical constructs of sequence, selection and repetition, user-defined functions, parameter passing by value and by reference, and the use of simple variables, arrays and structures.
Recommended Prerequisite(s) or Corequisite(s): MAT-127 or equivalent.

CIS-172
4.00
Java
This is an introductory course in Java programming. Java programs have uses in business, industry, and Web page design. This course is designed to guide the student in developing applications and applets. The course introduces the student to object-oriented programming concepts along with the Java syntax needed to implement them. Three hours lecture, two hours lab.
Corequisite(s): MAT-127

CIS-194
3.00
Layout Design III
Students take design and composition to the next level building on earlier Layout Design classes. Students work on design projects from concept to finished product to gain insights and experience while exploring the challenges of designing posters, logos, magazine covers and more.
Prerequisite(s): GRA-176, GRA-177

CIS-195
3.00
Layout Design Projects
Students take design and composition to the next level building on earlier Layout Design classes. Students work on design projects from concept to finished product to gain insights and experience while exploring the challenges of designing posters, logos, magazine covers and more.
Prerequisite(s): GRA-176, GRA-177

CIS-253
3.00
HTML Basics
In this course students learn HTML - the language of the Web. While not readily visible, this system of tags enables the display of graphics, text, and sound on the World Wide Web. Students become skilled at the core concepts of HTML, CSS, Javascript and create a project site from scratch. Projects are uploaded to a host server so people can view the files as pages on the Internet.

CIS-254
2.00
Basic Multimedia Design
This course is designed to introduce the principles of design that are essential to guide the viewers eye in visual communication pieces whether in print or on the Web. Students gain knowledge of typography and its use in creating interesting, provocative and effective type combinations as well as working with color as a visual tool. Course explore project ideation and build on how to effectively place elements and unify a design for clear communication.

CIS-255
3.00
Web Graphics
Get a thorough grounding in Adobe Photoshop and Adobe ImageReady, the must-have digital imaging programs for today's web and print designers. Hands-on projects include working with layers, making selections, incorporating color technique, creating special effects with filters and more. Create complex web graphics such as rollovers and animations.

CIS-256
3.00
Dreamweaver I
This course introduces Adobe Dreamweaver, software for Web page development. Students will create simple Web pages and sites that are responsive for viewing in multiple media screen sizes. This course will cover how to use Dreamweaver to manage site files, insert text and images, link pages together, and incorporate and apply CSS (Cascading Style Sheets). Students will create a project site and work with FTP protocols to save it to a server for live Web viewing.

CIS-257
3.00
Web Graphics 2
Students will learn to create original web graphics and interactivity using Macromedial Fireworks. Create valuable web components from simple graphical buttons to complex rollover effects and pop-up menus. Gain skill in optimizing images and exporting to Macromedia Flash and Dreamweaver.
Prerequisite(s): CIS-255

CIS-258
3.00
Dreamweaver II
Build on previous knowledge of Dreamweaver and create a dynamic, database-driven Web site. Use Dreamweaver to bind data to a Web page in a totally visual environment. Learn to plan a dynamic web site, create web forms, incorporate a database and define a database connection.
Prerequisite(s): CIS-256

CIS-259
3.00
Dreamweaver III
This course concentrates on building advanced skill in designing database driven sites with Dreamweaver. Create a portfolio-building project site that displays data and images dynamically. Process a search form and write code to enhance a Web site.
Prerequisite(s): CIS-258

CIS-260
3.00
Web Databases
Students will learn to create relational databases for use in web applications using Microsoft's Access, and the open-source relational database management system MySQL- administered with phpMyAdmin. Projects include website creation utilizing a content management system to support the creation and modification of web based digital content.
Prerequisite(s): CIS-256

CIS-261
3.00
Media Projects
When it comes to internship and job hunting, students want to be armed with original work that illustrates their talent and skills. In this project-based class, instructors work with students to prepare portfolio-level pieces. Pre-requisite: Students must be enrolled in one of the following programs or have instructor permission: Web Technology, Graphics Technology, Media Technology, CAD

CIS-262
3.00
Dreamweaver Projects
Students enrolled in this course work with clients to create a business website. Students draw on their entire body of Web design/development and programming knowledge to solve a variety of advanced online challenges facing their clients. Students work with clients on site publishing and domain name purchase. Emphasis is on the pre-production, production and post-production process of working with clients.

CIS-265
3.00
Photoshop 1
In this course students will learn practices and principles of digital imaging and photographic manipulation using Adobe Photoshop. Students will gain hands on experience with the tools and techniques used by artists and designers to create effective and sophisticated digital imagery for print and web publication. The course covers photo editing, color correction, layers, selection and masking tool, blending modes, filters and more to enhance digital images and create special effects. Additional topics include copyright and project management.

CIS-266
3.00
Photoshop 2
This class is designed for Photoshop users who want to broaden their understanding of the program's features. Students will develop skill in intermediate and advanced image creation and manipulation including special layers functions, filters and creating images for the web.
Prerequisite(s): CIS-265

CIS-277
3.00
Portfolio 1
This is the first of two courses which provides students with the time and focus to tighten and polish projects done in previous classes or other creative pursuits to create a digital portfolio. Students will continue to develop their creative and problem solving skills through the assignments. Projects include work on cover-letter, resume and reference documents. Students will complete and present their portfolio in CIS 278 Portfolio 2.

CIS-278
3.00
Portfolio 2
This course picks up where Portfolio 1 left off. Students complete their digital portfolio, cover letter, resume, and reference documents. Students will attend a job fair and create an online professional social media presence. The course culminates in the presentation of electronic portfolios to a panel of industry experts and interviewing with industry human relations officers.
Prerequisite(s): CIS-277

CIS-295
3.00
Advanced Web Design
This course will deal with advanced web design technologies such as jQuery, Google Analytics, Search Engine Optimization (SEO), working with Data formats like JSON, XML, and CSV files, creation of a shopping cart based website, and basic web server settings.

CIS-299
3.00
Wordpress
This course focuses on creating websites using WordPress. WordPress is a free open source Content Management System (CMS) and blogging tool used to create websites. WordPress can be used to create a traditional blogging sites and standard websites for business or personal use. No previous experience with WordPress is needed.

CIS-330
3.00
Php/Mysql
Millions of people use dynamic websites every day. Sites like Amazon, eBay, and Reddit are just a few widely popular dynamics websites. In this course students will learn to use PHP and MySQL to create database driven dynamic websites. Students will also learn how to add, edit, and delete content from a database by using Structured Query Language (SQL) to manipulate database records.

CIS-352
3.00
Video Editing
Adobe Premiere is a digital video application used to create high quality videos for DVD or web application. In this course you will learn to import video into Premiere and edit it to create short digital videos. Learn to add transitions, sound and text to your video.

CIS-604
3.00
Visual Basic
This is an introductory course in Visual Basic 2015 in which applications are developed that use the graphical user interface of Windows.

CIS-612
3.00
Advanced Visual Basic
This is a second course in Visual Basic Computer programming that will extend the coverage of the Visual Basic 2015 programming system that was covered in the first course of Visual Basic computer programming. Additional topics of coverage will include database access, management and data handling techniques, array development and utilization, developing Object-Oriented programs, SQL's, Drag-and-Drop concepts, and the Visual Basic graphics environment.
Prerequisite(s): CIS-604

CULTURAL STUDIES

CLS-130
3.00
African Cultures
This course is designed to introduce students to the modern history and culture of Africa and examines major themes relating to European conquest and imperialism, the development of the colonial economy, African responses to colonialism and the rise of nationalist movements that eventually achieved independence. Discussions about the post-colonial present, exploring recent socioeconomic transformations, continuities, as well as struggles over political authority, ethnic identity, gender, religion, media, popular culture, and access to resources, will be featured. The course will examine these themes by applying them to case studies of specific African nation-states.

CLS-141
3.00
Middle Eastern History and Culture
This course is an introduction to the history and culture of the modern Middle East from the late 18th century to the present. The course briefly surveys the early history of the region, beginning with the origins of Islam, but mainly focuses on the great pre-modern empires, their collapse under European pressures, the renaissance of Middle Eastern culture in the eighteenth and nineteenth centuries, the move toward independent states in the 19th and 20th centuries, and pan-Arabist and Islamist ideologies of the late 20th and early 21st centuries. Considerable attention will be devoted to the region since 1945 and to the problems and promises of the present day. Discussions about the post-colonial present, exploring recent socioeconomic transformations, continuities, as well as struggles over political and religious authority, ethnic identity, gender, religion, the arts and humanities, media, popular culture, and access to resources, will be featured.

CLS-150
3.00
Latin American History and Culture
This course is designed to introduce students to the modern history and culture of Latin America. The course examines major themes relating to European conquest and European/American imperialism, the development of the colonial economy, Latin American responses to colonialism and the rise of nationalist movements that achieved independence and resisted imperialism. Discussions about socioeconomic transformations, continuities, as well as struggles over political authority, ethnic identity, gender, religion, media, popular culture, and access to resources, will be featured.

CLS-165
3.00
Understanding Cultures: Modern Japan
This course is designed to introduce students to the history and culture of Japan, from the earliest times to the present, with an emphasis on the modern era. The course will examine the cultural unities and diversities, and continuities and discontinuities, which comprise the historical development of Japanese civilization. Topics include anthropology and social change; geography and the environment; philosophy and religion; economic development and commerce; politics and foreign relations; literature and the arts; science and medicine; power and authority; media and popular culture; and gender, ethnicity, and cultural identity. The course will examine how Japan's place in the world has changed through the transmission of culture, ideas, and technology from (and to) East Asia and the West, along with occurrences of confrontation, colonialism, imperialism, and war.

CLS-167
3.00
Understanding Cultures: Modern China
This course is designed to introduce students to the history and culture of China, from the earliest times to the present, with an emphasis on the modern era. The course will examine the cultural unities and diversities, and continuities and discontinuities, which comprise the historical development of Chinese civilization. Topics include anthropology and social change; geography and the environment; philosophy and religion; economic development and commerce; politics and foreign relations; literature and the arts; science and medicine; power and authority; media and popular culture; and gender, ethnicity, and cultural identity. The course will examine how China's place in the world has changed through the transmission of culture, ideas, and technology from (and to) East Asia and the West, along with occurrences of confrontation, colonialism, imperialism, and war.

CLS-170
3.00
Russian History and Culture
This course is an introduction to history and culture of Russia and the former Soviet Union. The course is designed to acquaint students with Russian geography, ethnic groups, and religious institutions, as well as with social, political, and economic developments that have combined to produce a constantly evolving Russian nation.

CLS-181
3.00
American Diversity
This course is designed to introduce students to the history and culture of American immigrant groups and majority and minority groups. There is a major focus on the historical and sociological meanings behind relevant concepts such as "American," "cultural diversity," and "inalienable rights" (e.g., life, liberty, and the pursuit of happiness). This course will emphasize the American quest for common ground by investigating our sociocultural roots through history, literature, and popular culture. Students will examine the varied American immigration experiences and the history of American majority and minority groups to find our common bonds.

CLS-210
3.00
Cultures in Transition
This course is an interdisciplinary introduction to a world region in cultural transition. Students will explore topics relating to the region's history, social and political institutions, art, music, literature, economy, religion, agriculture, geography, and ecology.

CLS-949
1.00
Special Topics
This course will examine firsthand the diversity of another nation. In particular, the students will learn about the history, land, peoples, government, economy, and culture of another country. This class will include a trip during the current semester. This will be taught as a stand-alone course and will not be affiliated with any other course.

COMMUNICATION

COM-142
3.00
Mass Media Writing
This course introduces students to writing in a professional environment and to the forms of writing for the mass media. These forms include news stories for print and broadcast, advertising copy for print and broadcast, and other types of writing for public relations.

COM-148
3.00
Diversity and the Media
Communication professionals are often required to cross borders of cultural identity, race, religion, age, sexual orientation and socio-economic status. Studying race, ethnic, multicultural groups, issues, and cultures from a mass communication perspective is important because your careers will probably require you to work with, portray, and/or represent people of diverse backgrounds. Radio, television, and film producers and writers, broadcast and print journalists, advertising and public relations specialists, teachers, professors, counselors, and general media consumers will all need to understand, communicate with and relate to individuals of diverse backgrounds in our changing nation and world. In an effort to prepare students to embark on the journey of understanding and working in a diverse society, this course will investigate underrepresented audiences through reading academic research on the topic of media and diversity, consuming stories produced by underrepresented groups, and experiencing these theories by way of assignments designed for hands-on learning.

COM-150
3.00
Mass Communications and Society
This course will introduce research and theories on media content, influences on it, and social implications of it, otherwise known as media sociology. This course takes a critical approach to the study of the production and consumption of mass media, from news media, to cultural media, advertising and new electronic forms of communication technologies. At the end of the course, students will have developed a nuanced understanding of the media forces shaping our lives and society.

COM-157
1.00
Newspaper Production
Students on the newspaper staff are to enroll in Newspaper Production if they are not in a journalism class, to earn credit for their work on the newspaper. Students accept and complete assignments for each of the four issues each semester. Assignments vary according to the student's interests and abilities, as well as the newspaper staff's needs.

COM-170
3.00
Crisis Media Management
This course is designed to provide students with a working knowledge of media crisis management. The course focuses on actions to take and actions to avoid when handling a crisis situation from a communications perspective. Topics will include issues management, risk management, relationship management, crisis planning and preparation, and review of case studies. Finally, students will develop a workable and generic crisis management plan.

COM-947
2.00
Special Projects
Highly motivated students may wish to work intensively on a creative or research project not covered in the course offerings of the department. The student should possess the necessary background for such work, and initiate an application for such study. A maximum of four hours of credit may be earned in any one department. Permission of the staff member with whom the student wishes to work is required.

COM-949
1.00
Special Topics
This course, usually offered on a limited basis only, provides an in-depth study on a topic of general interest pertaining to this department

CONSTRUCTION

CON-100
1.00
Basic Carpentry
Students will learn the complexities of working with hand and power tools. They will learn basic carpentry skills, which include wall framing, window and door framing, floor framing, and basic exterior finish.

CON-102
2.00
Introduction to Residential Construction
Students will be introduced to basic residential construction history, terminology, materials and basic construction techniques. This course will cover basic information and develop manual skills needed to begin construction of a new home.

CON-129
3.00
Concrete Theory & Lab
Emphasis of this course will be concrete estimation, poured foundation formwork and placement, and placement of exterior and interior flatwork by various methods including pumper and conveyer belt trucks. A variety of applications and finishes will be covered, including decorative finishes such as stamping and stenciling. Safety will be strongly enforced.

CON-130
1.00
Concrete Theory
Understanding concrete and its relationship to residential construction will be discussed along with concrete safety and testing techniques.

CON-131
1.00
Site Layout & Blueprint Reading
This course will train students to interpret and use working drawings and blueprints. It includes an understanding of construction symbols and building specifications. Students will develop a site layout for various projects utilizing lasers, builder's levels, construction calculator, blueprints, and site plans.

CON-133
4.00
Construction Technology Lab
This course consists of construction of floors, stairs, walls, ceilings, and roof systems in a residential setting or shop location. This course will expand on Introduction to Residential Construction. Construction safety will be strongly enforced. Safety glasses are required when working on site as required by Iowa Law.

CON-175
6.00
Residential Construction Applications
Students will apply advanced construction procedures on decks, walls, roofs, stairwells, and related structures. Durable design and application of proven methods will be emphasized. The course relates to sustainable building practices.

CON-219
4.00
Exterior Finish
This course will present the various materials used for residential exterior coverings. Topics will include insulated sheathing, house wraps, drainage planes, and shingles, soffits, venting, windows and exterior doors. Emphasis will be on sustainable construction techniques.

CON-301
7.00
Framing for Sustainable Design
The students will utilize resource efficient framing methods that stress energy efficiency and sustainable design. The "House as A System" method of residential construction will be teamed with Universal Design and Optimum Value Engineering techniques. This course will provide networking for the students with leaders in the energy efficiency and sustainable design arenas through guest speakers and the opportunity to present at conferences.

CON-302
1.00
Building Science I
Students will apply building science methods to determine how insulation, moisture, building pressures, heat flow and durable design apply to today's residential building methods.

CON-303
1.00
Building Science II
Students will be expanding on Building Science I, utilizing hands on activities to explore the effects of mold, volatile organic compounds, radon, healthy home design, renewable energy, and building failures.

CON-307
3.00
Basic Woodworking
The students will spend time constructing cabinets using various joint techniques. Safe tool operation and proper tool use will be emphasized. This course will give the students a basic knowledge of calculating, selecting, and using different types of cabinet materials.

CON-308
2.00
Interior Finish I
Students will discuss the theory and history of the residential interior system. Universal Design and a focus on indoor air quality will be stressed. Custom interior finish packages may be included.

CON-309
3.00
Interior Finish II
The lab portion of this course will be to apply gypsum board, tape, texture, and paint. The trim work will follow by installing pre-hung door units, casing, base mold, custom trim, closet finishes, hardware, and cabinetry. Universal Design and a focus on indoor air quality will be stressed. Custom interior finish packages may be included.

CON-321
2.00
Residential Estimating
Students will learn to estimate the residential construction costs of concrete, rough framing and finishes. Estimating skills will first be developed using a pencil paper analysis and then transferred to computer applications.

CON-386
1.00
Sustainable Design
Students will look at an overview of sustainable design and how to incorporate it into residential construction. There will be a continued emphasis on how to properly and efficiently install new and existing building products.

CON-500
2.00
Construction Tech Lab 1A
This course consists of construction of floors, stairs, walls, ceilings, and roof systems in a residential setting or shop location. This course will expand on Introduction to Residential Construction. Construction safety will be strongly enforced. Safety glasses are required when working on site as required by Iowa Law. This is the first of two classes to full fill CON 133 Construction Technology Lab requirement.

CON-501
2.00
Construction Tech Lab 1B
This course consists of construction of floors, stairs, walls, ceilings, and roof systems in a residential setting or shop location. This course will expand on Introduction to Residential Construction. Construction safety will be strongly enforced. Safety glasses are required when working on site as required by Iowa Law. This is the second of two classes to full fill CON 133 Construction Technology Lab requirement.

CON-949
2.00
Spec Topics: Woodworking Fundamentals
This course will give the students a basic knowledge of calculating, selecting, and using different types of cabinet materials. Safe tool operation and proper tool use will be emphasized. Students will spend time constructing cabinets using various joint techniques.

CRIMINAL JUSTICE

CRJ-100
3.00
Introduction to Criminal Justice
This course is a study of our society and the changes in regards to Criminal Justice needs and administration of our laws. Emphasis is placed on individuals in the Criminal justice field's role in our society.

CRJ-110
3.00
Patrol Procedures
A study of techniques, and methods of patrol procedures, investigations and the responsibility, powers and duties of the law enforcement officer.

CRJ-120
3.00
Intro to Corrections
This course provides an in depth look at the past, present and future of corrections. It examines the purposes of correctional punishment throughout history and highlights the many subcomponents of modern-day corrections. We will focus on issues facing the correctional enterprise today and gain an appreciation for contemporary real-world correctional practice. Students will be able to review the career opportunities available in the progressive field of corrections.

CRJ-132
3.00
Constitutional Law
The course covers arrest, search and seizure, review of court systems, procedures from incident to final disposition, principles of constitutional, federal, state and civil laws as they apply to and affect members of the criminal justice system.

CRJ-133
3.00
Constitutional Criminal Procedure
This course is the study of the philosophy and the basis for law, the historical development of criminal law and the procedures, the structure, the definition and the criminal law of Iowa. Exploring the causation, preparation and perpetration of crimes, criminal conduct and parties to crimes.

CRJ-141
3.00
Criminal Investigation
This course examines the fundamentals of criminal investigation: rules of identification, recording reports and statements; case preparation; testifying in court; basic report writing and investigative techniques relating to specific crimes such as robbery, burglary, homicide and narcotics violations are explored.

CRJ-152
3.00
Defensive Tactics
The topics covered in the course are Civil Liability of Law Enforcement Officers in regards to Use of Force. Methods of defending against and controlling assailants by use of Defensive Tactics, Pressure Point Control, Edge Weapon / Firearms Awareness and Handcuffing Techniques. A Firearms Simulation is utilized in the course to expose the student real life applications.

CRJ-160
3.00
Intro to Forensic Investigation
This course aims at making the subject of forensic science comprehensible to a wide variety of students who are planning on being aligned with the criminal justice profession. This course introduces the non-scientific student to the field of forensic science. Through applications to criminal investigations, clear explanations of the techniques, and the abilities and limitations of modern crime labs, this course covers the comprehensive realm of forensics. The text strives to make the technology of the modern crime laboratory clear to the non-scientist. Combining case stories with applicable technology, Criminalistics captures the excitement of forensic science investigations.

CRJ-170
3.00
Overview of Cybercrime
The course provides an introduction and overview of computer crime. In particular, a categorization of types of computer crimes is presented including: the computer as a target, the computer as an instrument of a crime, the computer as incidental to crime, and crimes associated with the prevalence of computers.

CRJ-200
3.00
Criminology
This course explores the response of the criminal justice system in its attempt to prevent, predicts, and control criminal activity. Emphasis is also on the various theories that attempt to explain criminal behavior, and the nature and causes of criminal activity.

CRJ-201
3.00
Juvenile Delinquency
This course explores the area of juvenile delinquency, its history, theories, laws, and the criminal justice system's response in caring for, treating, and controlling delinquent behavior.

CRJ-206
3.00
Terrorism Response
This course provides an in-depth look at terrorism in the world today and its many factions. Definitions and a historical context of terrorism are explored. Topics regarding countering terrorism and how the world is fighting against extremist terrorism are discussed.

CRJ-260
3.00
Medicolegal Death Investigation
This course aims at making the subject of death investigation comprehensible to a wide variety of students who are planning on being aligned with the criminal justice profession. This course introduces the non-scientific student to the field of death investigations. This course provides information to conduct a scientific, systematic, and thorough death scene investigation. Content includes information regarding the investigation of natural and unnatural cases of death such as asphyxia death, toxicological deaths, childhood deaths, firearm deaths, and deaths due to blunt and sharp force injury, as well as deaths from the natural disease processes.

CRJ-300
3.00
Perspectives of Homeland Security
Terrorism has captured global attention to a degree without historical parallel. This course explores the events of 9/11 and beyond. In an uncertain world that has emerged since 9/11, intergovernmental organizations, national governments, policy analysts, law enforcement groups, scholars, and society at large, are all faced with the arrival of difficult times that challenge older notions about international terrorism. At the same time, recent developments on the American scene remind us, despite unprecedented scope of the 9/11 catastrophes, that homegrown terrorism and the extremist beliefs that accompany it remain a threat to public order in the United States. This course will explore these domestic groups in depth.

AUTO BODY COLLISION REPAIR

CRR-104
3.00
Introduction to Automotive Restoration
Introduction to the way vehicles were built in the past. Accessing vehicle repair parts, ordering parts, and putting ideas together for the design of custom vehicle.

CRR-105
3.00
Introduction to Specialty Tools
Students will learn to use an array of specialty tools related to custom fabrication of sheet metal.

CRR-110
3.00
Auto Body Welding
This course will introduce students to the basics of auto body welding safety, use of oxy-acetylene cutting and welding torches, spot, mig and tig welding with auto body applications.

CRR-111
3.00
St Rod Welding
Students will learn the basics of welding thicker gauge steel such as vehicle frames and different techniques for welding in body panels.

CRR-204
3.00
Repair of Plastics and Adhesives
The Repair of plastics and adhesives course will give students the knowledge and experience to identify and repair rigid, semi-rigid, and flexible plastic panels.

CRR-303
3.00
Introduction to Auto Body Repair
Students will use various methods to stripe paint finishes, such as sand blasting, media blasting, chemical stripping and soda blasting. Student will also learn how to treat bare metal surfaces with the correct coatings.

CRR-309
3.00
Auto Body Prep & Masking
This course focuses on the refinishing process of preparing the surface for refinishing, cleaning preparations for masking and the different types of masking materials and their advantages and disadvantages.

CRR-337
3.00
Beginning Metal and Filler Work
The Beginning Metal and Filler Work course will provide students with the necessary skills to work out various types of dents and properly apply various fillers.

CRR-341
3.00
Metal Fabrication
Students will explore the process involved in custom fabrication of sheet metal such as chopping tops and fabricating their own rust repair panels.

CRR-345
3.00
Advanced Metal Sectioning and Repair
This class allows the student the opportunity to utilize current technology to section and apply the latest technology in the welding and bonding of late model vehicles.

CRR-346
3.00
Metal Stripping
Students will use various methods to stripe paint finishes, such as sand blasting, media blasting, chemical stripping and soda blasting. Student will also learn how to treat bare metal surfaces with the correct coatings.

CRR-401
3.00
Panel & Door Skin Replacement
The Panel and Door Skin Replacement course will allow Students to gain experience replacing door skins, fenders and rear quarter panels.

CRR-415
3.00
Restraint Systems
The student will learn to diagnose and repair various restraint systems used by OEM manufacturers today.

CRR-501
3.00
Frame Machine Use
The Frame Machine Use course will allow students to diagnose and measure structural damage using tram, centerline gauges, and computerized laser measuring systems.

CRR-612
3.00
Steering/Suspension
This course will provide an in-depth analysis of operation and service of automotive chassis and suspension systems. Emphasis will be placed on the principles of restoring a collision damaged suspension back to its pre-accident condition, using manufactures specifications and tolerances. The principles of steering & suspension components, steering geometry, inspection and replacement of damaged components with manual and electronic measuring will also be covered.

CRR-613
3.00
Altered Steering and Suspension
Students will learn about different aftermarket steering and suspension upgrades. Students will inspect vehicles for worn out suspension and steering parts and learn how to replace them.

CRR-620
3.00
Electrical Mechanical Systems
The Electrical Mechanical Systems course will allow students to learn the proper procedures for electrical repair work. The use of wire and solder. The repair of special electrical connectors. Students will learn the use of specialty electrical trouble shooting equipment.

CRR-750
3.00
Damage Estimating & Shop Operation
Introduction to procedure and sequence of writing collision damage estimates, familiarization with body shop management. Students will be introduced to material (physical) damage, insurance policies, and adjusting.

CRR-807
3.00
Auto Body Refinishing
The Auto Body Refinishing course will provide students with the necessary surface preparation prior to primer and paint applications. Students will learn the art of touch and feel to compliment visual inspection prior to final finish.

CRR-813
3.00
Advanced Auto Body Repair & Refinishing
This course includes job planning, sheet metal repair, metal finishing, along with glass replacement and frame work.

CRR-817
3.00
Buff and Detail
Students will learn to color, sand, buff and detail freshly applied finishes as well as aged finished as well as detailing interiors.

CRR-850
3.00
Computerized Paint Mixing
Students will demonstrate the appropriate method for retrieving vehicle formulas as well as proper shading and tinting of these formulas and reduction of these formulas.

CRR-852
3.00
Custom Painting & Airbrush
The auto body painting course will cover basic custom painting and air brush work.

CRR-853
3.00
Custom St Rod Painting
Students will learn techniques involved in custom painting an entire vehicle.

CRR-887
3.00
Complete Refinish and Detail
Students will learn the correct techniques involved in refinishing a vehicle, from surface preparation to final painting. Students will also learn the techniques involved in color sanding and buffing and final detailing.

CRR-910
3.00
Auto Body Rebuild Project I
The Auto Body Rebuild 1 course will allow students to take on a major rebuild or restoration project from start to finish.

CRR-911
3.00
Auto Body Rebuild Project II
This Auto Body Rebuild Project II course will allow students to take on a major rebuild or restoration project from start to finish. Students are expected to work with less supervision then they received in the rebuild project I class.

CRR-913
3.00
Restoration Project I
Students will disassemble and restore a vehicle.

CRR-914
3.00
Restoration Project II
Students will design and assemble a fiberglass street rod from start to finish.

CRR-949
1.00
Spec Top: Spray Finishes
This auto body painting course will cover basic custom painting and air brush work.

COMPUTER SCIENCE

CSC-040
3.00
Computer Fundamentals
This fundamentals course will present the basic uses, understanding and knowledge of computer hardware and software. It will teach the fundamentals of the Windows Operating System environment and the use of popular business software using word processing and spreadsheet applications. E-mail communication skills and the use of the Internet as a communication and research tool will be developed.

CSC-110
3.00
Introduction to Computers
This is an introductory course in computer literacy and software applications. The literacy components of the course include history of computing, computer systems, communications, networks, and computers in society. The applications training will include word processing, spreadsheets, database management, and presentation software. No prior computer experience necessary.

CSC-125
2.00
Microsoft Fundamentals
This will give introductory knowledge with Microsoft excel and word, focusing on tasks that pertain to the plants applications. Including creating, formatting and editing documents and getting knowledge around chart production with excel and word both.

DENTAL HYGIENE

DHY-114
4.00
Dental Hygiene Anatomical Sciences
This course encompasses the fundamental study of head and neck anatomy, postnatal development, structure of the teeth, facial, oral and tooth anatomy, the morphology of the teeth, identification of the teeth, their functions and occlusion. Instruction emphasizes peer interaction with dental nomenclature and the inspection of teeth and surrounding structures.
Corequisite(s): DHY-163
Prerequisite(s): BIO-168, BIO-173

DHY-121
2.00
Oral Histology and Embryology
This course covers the normal growth and development of the face and oral structures. This course includes the descriptions of the processes which occur at the cellular level in the growth and development along with the normal microscopic anatomy of oral structures.
Corequisite(s): DHY-114, DHY-174, DHY-163
Prerequisite(s): BIO-168, BIO-173, BIO-186, CHM-110, CHM-111

DHY-132
3.00
Dental Pharmacology
This course covers general pharmacology and reviews drugs that may influence the management of dental hygiene patients. This course will enable the student to develop sufficient knowledge of pharmacology to permit safe and effective medical evaluation of patients for dental hygiene treatment.
Prerequisite(s): BIO-168, BIO-173, BIO-186, CHM-110, CHM-111

DHY-140
2.00
General and Oral Pathology
This course encompasses the fundamental study of abnormal findings in and around the oral cavity, including identification of lesions, developmental disorders, neoplasia, genetics, inflammation, degenerative changes, oral manifestations of diseases and/or conditions. Instruction emphasizes case studies, vocabulary and terminology; along with the comprehensive integration throughout all clinical aspects of the inspection of the oral cavity and surrounding structures.
Prerequisite(s): DHY-114

DHY-163
3.00
Radiology
This course encompasses the physics of radiation and radiation biology as they are related to the principles, techniques and interpretation of intra and extraoral radiographs. Quality in exposing, mounting and processing dental x-rays is stressed along with an emphasis on the safety of the patient and operator included in this course. Laboratory exercises will develop the student's competency in exposing, processing and mounting radiographs.
Corequisite(s): DHY-114

DHY-174
5.00
Principles of Dental Hygiene
This course introduces the students to the basic principles and theory of clinical dental hygiene. The course will cover the etiology of deposits and their effect on oral tissue. The student's skill and performance in removal of deposits through instrumentation is emphasized utilizing hands on instruction and demonstration.

DHY-183
2.00
Dental Hygiene I Theory
This course builds upon the fundamental level dental hygiene knowledge and skills acquired in DHY-174 Principles of Dental Hygiene. Emphasis centers on the dental hygiene process of care and utilizes the care model as the basis for the provision of care to individuals in specific populations, patients with special needs, and medically compromised patients. Emergency procedures and protocol will be presented and practiced with emphasis placed on the recognition and prevention of emergency conditions, medico-legal considerations, and management of emergencies in a dental environment.
Corequisite(s): DHY-184

DHY-184
3.00
Clinical Dental Hygiene I
This course is an application of the instrumental skills utilized in preventative and therapeutic dental hygiene clinical experiences in oral prophylaxis, application of preventative therapeutics and radiography techniques to beginner level. This course is a pass/not pass course
Corequisite(s): DHY-183, DHY-209
Prerequisite(s): DHY-174

DHY-209
3.00
Periodontology
This course covers the initiation, development, pathogenesis, mechanism, etiology and process of periodontal disease that is fundamental to the clinical hygienist. Periodontology provides an in-depth study of the pathogenesis of periodontal disease. It presents the microscopic oral anatomy of the periodontium, plaque-induced and non-plaque induced diseases and the American Academy of Periodontology (AAP) classification of periodontal diseases, clinical characteristics, histopathology, and etiology of periodontal diseases. Special emphasis centers on the role of the immune system and host response to bacteria in the initiation and progression of periodontal disease, including risk factors associated with periodontal disease.
Corequisite(s): DHY-184
Prerequisite(s): BIO-186

DHY-224
1.00
Dental Materials
This course will cover the various materials used in restorative dentistry and other specialty areas in dentistry. Some of which are used to fabricate dental appliances and others for tooth restoration. Lecture and laboratory components will help students develop an understanding of the composition, properties, structure, and manipulative variables of dental materials historically used in dentistry as well as new materials and techniques that are rapidly evolving. Emphasis centers on practical application as well as clinical applications of materials and the need for educating patients regarding these materials along with the techniques for placement of materials in the oral cavity.
Corequisite(s): DHY-278, DHY-280
Prerequisite(s): DHY-233, DHY-209, DHY-140, DHY-184, DHY-183

DHY-233
2.00
Preventative Dentistry/Nutrition
This course focuses on preventing disease and nutrition's effect on oral health throughout the life cycle. It establishes the principles of counseling and emphasizes patient education and instruction in preventive dentistry necessary to maintain optimum oral health.
Prerequisite(s): BIO-168, BIO-173, BIO-186, CHM-110, CHM-111

DHY-253
1.00
Community Oral Health Rotations
This course allows the student to apply public health/health education principles through implementation and evaluation of the student's community dental health project and through participation in extramural rotations outside of the school setting. Emphasis is placed on students interacting with a variety of clients including children, the physically and mentally handicapped, indigent populations and geriatric groups. Experiences in interprofessional/disciplinary collaborations.
Prerequisite(s): DHY-256

DHY-256
2.00
Community Dentistry
This course relates the concepts of dental public health and preventative dentistry, including principles of biostatistics, epidemiology, educational instruction, dental manpower and delivery systems. Students plan, implement and evaluate a community dental health project. Community Dentistry may include community service to be performed by the students.
Prerequisite(s): DHY-280

DHY-265
2.00
Current Dental Hygiene Practice
This course explores the integration of therapy and clinical experiences to the application of practice management of dental hygiene. It is designed to orient the student to the various office settings and each team member's role. This course will also help introduce the dental hygiene student the moral, legal and administrative challenges that can occur in the dental practice, including adult and child abuse and the legal aspects including the statutes, rules and regulations pertaining to the practice of dental hygiene in the state of Iowa. Dental Hygiene is a licensed profession and are held accountable for their actions. This course will provide an introduction to various ethical theories, moral philosophy and reasoning. The American Dental Hygienists' Association Code of Ethics will provide a guide for the student in their daily practice. The governmental policy and employment regulations that impact the delivery of dental hygiene care will also be covered. Included in this course is baseline knowledge of Ethics as it relates to dental care issues.
Prerequisite(s): DHY-209

DHY-278
2.00
Dental Hygiene II Theory
This course provides the continuing instruction and application of client education and clinical techniques. Dental Hygiene II is a continuation of clinical practices providing further instruction and application of patient education and oral prophylaxis techniques. Emphasis is placed on continued client assessment proficiency, instrumentation and radiographic skills with total over-all care of clients with simple to moderate patient classifications. Topics include mechanical scalers, air-polishing techniques, chemotherapeutics, endodontic pulp testing, sutures, intra-oral photography utilization. Pain control techniques are also covered including local anesthesia administration and nitrous oxide-oxygen inhalation analgesia.
Prerequisite(s): DHY-183

DHY-280
3.00
Clinical Dental Hygiene II
This course continues the clinical practices providing further instruction and application of client education and clinical techniques. Emphasis is placed on continued client assessment proficiency, instrumentation and radiographic skills with total over-all care of clients with simple to moderate patient classifications. This is a pass/not pass course.
Corequisite(s): DHY-278, DHY-224
Prerequisite(s): DHY-183, DHY-184, DHY-140, DHY-209, DHY-233

DHY-292
5.00
Clincal Dental Hygiene III
This course expands clinical practices of client education, introduction to advanced instrumentation and radiographic skills, increase efficiency and effectiveness in assessment and communication providing comprehensive dental hygiene care to advanced cases. This is a pass/not pass course.
Corequisite(s): DHY-293, DHY-256, DHY-132
Prerequisite(s): DHY-278, DHY-280, DHY-224

DHY-293
2.00
Dental Hygiene III Theory
This course expands the processes of providing further instruction and application of client education and non-surgical periodontal therapy and maintenance and preventative therapies on more complex periodontal cases. Emphasis is placed on advanced instrumentation and radiographic skills, increase efficiency and effectiveness in assessment and communication providing comprehensive dental hygiene care to advanced cases. Research principles are applied to facilitate the students' comprehension and ability to critique professional and scientific literature to continue to learn and grow as a professional and enhance clinical practice.
Prerequisite(s): DHY-279

DHY-302
5.00
Clinical Dental Hygiene IV
This course provides continued development of comprehensive care with emphasis placed on the ability to synthesize the instruction and techniques gained from the previous courses while providing comprehensive program exit-level competency for clients. Research principles are applied to facilitate growth as a professional and enhance clinical skills. This is a pass/not pass course.
Prerequisite(s): DHY-292

DHY-303
2.00
Dental Hygiene IV Theory
This course provides continued development of comprehensive care with emphasis placed on the ability to synthesize the instruction and techniques gained from the previous courses while providing comprehensive program exit-level competency for clients. Research principles are applied to facilitate the students' comprehension and ability to critique professional and scientific literature to continue to learn and grow as a professional and enhance clinical practice.
Prerequisite(s): DHY-293

FILM AND THEATRE

DRA-101
3.00
Introduction to Theatre
Introduction to Theatre is a survey course which offers an inside look at how theatre works-both from the audience and the performers' perspectives. The overview includes the roles of the audience, the writers, the actors, the directors and the technicians-and how those roles have evolved over time. It is designed to develop in the student an understanding and appreciation of theatrical productions. Students will get a first-hand look at a production in progress and also have an opportunity to experience a taste of performance at the end of the semester in a team presentation.

DRA-130
3.00
Acting I
Acting I offers energetic, in-class activities which are designed to develop concentration, energy, creativity and character connection, even for students who have never been onstage-or who might not even plan to be onstage someday. It is a performance-based course which offers much individual and group practice on techniques ranging from Improvisation and Motivated Movement Drills to Concentration/Creative Exercises to Physical Centering Techniques. It is designed to introduce students to the fundamental training components of Acting through participation in a variety of these creative exercises. The course culminates in scene work which teaches students to believe in the actions of a character.

DRA-132
3.00
Acting II
Acting II works beyond the fundamentals of acting covered in Acting I. The focus shifts from the building blocks of acting technique to practical application in scene work. While there will be some advanced improvisational technique, the bulk of the course centers on vocal and physical interpretation of characters and to the staging choices students make in preparing and performing their scenes.
Prerequisite(s): DRA-130

DRA-154
3.00
Theatre Production
This hands-on course provides technical experience in the design and production process of a play or musical (as well as a series of smaller events) and includes a final project to be selected by the student with approval of the professor. All technical aspects of theatre will be covered in the class period and then implemented in the lab and required production hours.

DRA-254
3.00
Theatre Production II
This hands-on course provides more intensive technical knowledge and experience in the design and production process of plays, musicals, concerts, etc. and includes a group final project to be selected by the students with approval of the professor. Further study of the technical aspects of theatre, etc. will be covered in lecture during the class period and then individualized in the lab and required production hours.
Prerequisite(s): DRA-154

DRA-929
1.00
Individual Project
1,2,3,or 4 credit hours. Highly motivated students may wish to work intensively on a creative or research project that is more advanced than the course offerings of the department in that area. The student should possess the necessary background, such as any pre-requisite classes, and should initiate an application for such study. A maximum of four hours may be earned. Permission from the faculty or staff member with whom the student wishes to work is required.

DIESEL TECHNOLOGY

DSL-323
3.00
Intro to Diesel Technology
Intro to diesel technology will introduce students to the world of the diesel engine. It will get them familiar with the different engine manufactures and the different engine and power train systems used today. Shop safety and the tools and fasteners of the diesel industry will be covered. Students will learn how to safely use shop equipment like jacks and presses. Shop skills like drilling, tapping, torching, and welding will be covered in the lab. Fine skills like precision measuring will be extensively covered.

DSL-357
3.00
Diesel Engines I
The Diesel Engines I course will provide students with the opportunity to learn the basic principles of diesel engine overhaul and service. Students will learn the basics of diesel engines.

DSL-358
3.00
Diesel Engines II
The Diesel Engines II course will provide students with some advanced diesel engine repair and trouble shooting skills.

DSL-403
3.00
Electronic Engine Control I
The Electronic Engine Control I course will introduce electronic engine control systems and the components used on today's computer controlled diesel engines.

DSL-413
3.00
Electronic Engine Control II
Electronic Engine Control II will utilize all major electronic diagnostic software. It will be used to trouble shoot and repair problems, and change software on engine ECMs for horse power upgrades and service bulletin up dates. Students will use wiring schematics and rewire and trouble shoot electronically controlled engines. ABS brake systems and electronically controlled transmissions will also be covered.

DSL-426
3.00
Intro to Med. and Heavy Duty Electronics
Introduction to Medium and Heavy Duty Electronics will introduce students to the basics of electronic theory and concept. Laws of electronics such as OHM'S law will be covered in depth. Students will learn how to perform proper wiring repairs with solder and learn how to use voltage and amperage tools. The digital multi meter will be introduced and covered in depth on the proper uses and functions. Electrical schematics and symbols will be introduced as well as troubleshooting procedures.

DSL-427
3.00
Adv. Med. & Hvy Duty Electronics
Advanced medium and heavy duty electronics will get students familiarized with electronic components found on trucks and equipment. Batteries, starting, and charging systems will be tested using modern test instruments. Students will learn how to use and read wiring schematics to diagnose and troubleshoot advanced electrical circuits. Students will be introduced to principles of controller networking and telematics. Basic sensors and testing will be covered including rheostats, potentiometers, thermistors, and magnetic generators.

DSL-445
3.00
Diesel Fuel Systems
The Diesel Fuel System course will provide students with the basics of direct and indirect diesel injection systems. Students will learn the different grades of diesel fuels and different types of filters used. Students will learn the operation and troubleshooting of rotary pumps (Distributor) and in line pumps. Students will learn the operation, troubleshooting and repair techniques associated with mechanical or electronic diesel injected fuel systems. Students will learn how to time and remove the pump and injectors on various engines. Fuel system flow will be extensively covered.

DSL-545
3.00
Power Train and Maintenance
The Power Train and Maintenance course will provide students with the opportunity to learn the correct service procedures when working with clutches, transmissions and final drives components.

DSL-547
3.00
Ag and Commercial Power Train
Ag and Commercial Power Train will teach students the power train side of heavy duty equipment. Starting with gear fundamentals and various clutch designs. Manual transmissions, Power shift Transmissions, CVT transmissions, and hydrostatic transmissions will be covered. Track propelling systems and heavy duty differentials and final drives will also be covered.

DSL-615
3.00
Mobile Hydraulics Systems
The Mobile Hydraulics Systems course will cover the basics of hydraulic pump, piping control values, filtration and oil maintenance.

DSL-620
3.00
Semi Tractor Trailer Suspension & Align.
The Semi Tractor Trailer Suspension Alignment course will provide students with the opportunity to learn how to service semi-tractor trailer suspension and laser alignment systems.

DSL-634
3.00
Service Tractor Trailer Pneumatic Brake
The Tractor Trailer Pneumatic Brake Service course will provide students with the basics of pneumatic brake systems progressing up through anti-lock pneumatic tractor trailer brake systems.

DSL-743
3.00
Air Conditioning and Refrigeration
The Air Conditioning and Refrigeration course will introduce students to the basics of heat pump, the safe handling of refrigerant gases, gauges testing, gas reclamation, and preventative maintenance procedures.

DSL-804
3.00
Ag and Commercial Equipment Maintenance
Ag and Commercial Maintenance will teach students how to maintain agricultural and commercial heavy duty equipment. Things from oil changes, hydraulic repair, heavy duty electrical starting systems and general maintenance will be covered. Then a more in-depth coverage of heavy duty track systems, final drives and PTOs will be covered.

DSL-835
2.00
Commercial Drivers License
The Commercial Drivers License course will provide students with the opportunity to obtain their CDL License.

DSL-838
3.00
Diesel Automotive Systems
The Diesel Automotive Systems course will provide students with the opportunity to learn to work on and service diesel powered automobiles.

DSL-840
3.00
Diesel Operations and Maintenance 1
The Diesel Operations and Maintenance I course will provide students with the opportunity to do real life trouble shooting and repair on projects in the shop. They will also learn the correct way to service and maintain trucks, trailers, and equipment.

DSL-841
3.00
Diesel Operations and Maintenance II
The Diesel Operations and Maintenance II course will provide students with the opportunity to use all of the information learned in Diesel Operations and Maintenance I and apply it to a real shop setting.

DSL-850
3.00
On-Board Communication Systems
The On-Board Communication Systems course will provide students with knowledge of the internal and external communication systems utilized in today's over the road tractor trailer units.

DSL-932
4.00
Diesel Technology Internship
The Internship in Diesel Mechanics course will allow students to experience working in a repair shop under the supervision of an experienced diesel mechanic.

DSL-949
3.00
Spec Top: Ag Systems Technology
This course, usually offered on a limited basis only, provides an in-depth study on a topic of general interest pertaining to this department.

EARLY CHILDHOOD EDUCATION

ECE-103
3.00
Introduction Early Childhood Education
Gives students a historical and philosophical foundation of the field of early childhood education. Includes an overview of assessment and evidence-based practices. Addresses the influences of family-centered practice, inclusion, culture and language. Explores early childhood careers.

ECE-133
3.00
Child Health, Safety, and Nutrition
Focuses on evidence-based concepts in the fields of health, safety and nutrition and their relationship to the growth and development of the young child ages birth to eight. Blends current theory with problem-solving, practical applications and assessments. Includes collaboration with families and assesses the role of culture, language and ability on health, safety, and nutrition decisions in early childhood settings.

ECE-158
3.00
Early Childhood Curriculum I
Focuses on the development, implementation and assessment of appropriate environments and curricula for young children ages three through eight. Students prepare to utilize evidence -based, developmentally appropriate practices in the context of children's family, culture, language and abilities. Emphasis is on understanding children's developmental stages and developing appropriate learning opportunities, interactions and environments to support each child in the following areas: dramatic play, art, music, fine and gross motor play.

ECE-159
3.00
Early Childhood Curriculum II
Focuses on the development, implementation and assessment of appropriate environments and curricula for young children ages three through eight. Students prepare to utilize developmentally appropriate evidence-based practices in a context of children's culture, language and abilities. Emphasis is on understanding children's developmental stages and developing appropriate learning opportunities, interactions and environments in the following areas: emergent literacy, math, science, technology and social studies.
Prerequisite(s): ECE-158

ECE-221
3.00
Infant/Toddler Care and Education
Focuses on care, education, and assessment of children from birth to thirty-six months. Prepares students to utilize, developmentally appropriate evidenced-based practices including responsive caregiving, routines as curriculum, collaborative relationships with culturally, linguistically, and ability diverse children and families, and a focus on the whole child in inclusive settings.
Prerequisite(s): ECE-103, ECE-133, ECE-158, PSY-222, HSV-162

ECE-243
3.00
Early Childhood Guidance
Focuses on developmental appropriate, evidence -based approaches and positive guidance strategies for supporting the development of each child. Emphasizes supportive interactions and developmentally appropriate environments. Uses assessment to analyze and guide behaviors. Studies impact of family, and each child's culture, language and ability on child guidance.
Prerequisite(s): ECE-103, ECE-133, ECE-158, PSY-222, HSV-162

ECE-262
3.00
Early Childhood Field Experience
Supervised experience* in selected early childhood settings serving children ages birth through eight. Includes integration of theory, and developmentally appropriate evidence-based practice. Provides an understanding of the working with culturally, linguistically and ability diverse young children and families. Emphasizes professional relationships and behavior, appropriate adult / child interactions, basic curriculum planning, and program routines.
*Requires a minimum of 80 contact hours (4800 minutes) for 2 credits of direct work with children, with the remaining contact hours equal to one credit being distributed across direct contact and classroom hours as deemed appropriate by the institution.
Prerequisite(s) or Corequisite(s): ECE-158, ECE-159, ECE-243, ECE-221

ECONOMICS

ECN-120
3.00
Principles of Macroeconomics
This course is an introduction to the general field of economics, description and analysis of the American economic system, national income accounting, modern employment theory, fiscal policy, monetary policy, and economic growth.

ECN-130
3.00
Principles of Microeconomics
This course will examine how consumers make decisions, firms maximize profits, and how various market structures affect price and output decisions of firms. Topics include supply and demand, elasticity, consumer and producer surplus, production and costs, and market structures.

EDUCATION

EDU-115
4.00
Education and the Teaching Process
The course is a study of general classroom methods and problems, the learning process and the role of the teacher. It provides for practical applications of educational concepts through both observation and participation in classroom situations. The course includes two hours of lecture and discussion and four hours of field experience per week.

EDU-213
3.00
Introduction to Education
Emphasis is on the appraisal of the teaching profession, work and certification of teachers, consideration of administrative organization, instructional procedures and contemporary problems at both the elementary level and the secondary level. It includes a study of the historical and sociological foundations of education.

EDU-235
3.00
Children's Literature
This course includes a study of the history of children's literature, the place of literature in the lives of children, authors and illustrators, storytelling and trends. It also surveys children's books and evaluates both books and illustrations in terms of criteria for good literature.

EDU-255
3.00
Technology in the Classroom
This course will introduce the student to the theoretical foundations and current research related to the adaptation of technology in the modern classroom.

EDU-920
2.00
Field Experience
This field experience will emphasize the State of Iowa mandated competencies for paraeducator certification training. This course will focus on "in the classroom" skills that paraeducators will be expected to perform while assisting certified teachers.

EDU-949
1.00
Special Topics
This course, offered usually on a one-time basis only, provides an in-depth study on a topic of general interest pertaining to this department.

ENGINEERING TECHNOLOGY

EGT-400
3.00
Introduction to Engineering Design
This course is an introduction to the elements of Engineering Design. Students will learn the history of design, design process, sketching and visualization, geometric relationships, and modeling. Elements of manufacturing production, marketing, analysis, and quality control will also be studied. Students will learn presentation techniques and develop a portfolio.

EGT-410
3.00
Principles of Engineering
This course is an introduction to the opportunities and responsibilities of Engineering. Students will learn the fields of Engineering, and explore Engineering Careers. They will complete projects from areas such as Design, Engineering Systems, Thermodynamics, Fluid Systems, Electrical and Control Systems, Strength and Properties of Materials and Production Process and Quality Control.

EGT-420
3.00
PLTW-Digital Electronics
This course is an introduction to Digital Electronics. Students will learn basic lab safety, electron theory, Ohm's and Kirchhoff's Laws, logic, number systems, binary addition and Boolean Expression applications. Students will design construct, troubleshoot and evaluate design problems, and will present oral reports of their results. Students will also study PLD's, Flip-Flops, microprocessors, and shift registers and counters.

EGT-450
3.00
Computer Integrated Manufacturing
This course enhances computer modeling skills by applying principles of robotics and manufacturing automation to the creation of models of three-dimensional designs.

ELECTRICAL TECHNOLOGY

ELE-104
1.00
Print Reading & Estimating
This course is designed to increase the proficiency of the student in the making of a material take off sheet from a print. The student will also be introduced into common building and electrical symbols.

ELE-111
3.00
AC Fundamentals
This course will build upon the concepts covered in DC Fundamentals with the addition of inductance, capacitance, and impedance. Emphasis will be on true and apparent power, power factor analysis and correction, mutual inductance, transformers, AC power supplies and three phase power.

ELE-114
3.00
DC Fundamentals
This introductory course will begin with the topics of Direct Current fundamentals, electrical safety, VOM meter use, oscilloscope use, scientific notation, metric prefixes, Ohm's Law to solve series circuits, parallel circuits and series-parallel circuits. Electrical symbols and schematic diagrams along with standard electrical prints will be introduced.

ELE-124
2.00
Tools/Adapters/Instrumentation
This class will introduce the student to basic hand and power tools for the electrician. The course will also introduce the student to types of metering tools, how to electrically troubleshoot different types of industrial equipment, and job site safety.

ELE-149
2.00
Ul and Electrical Safety
This class will introduce the student to the use of the UL White Book. The student will be instructed in the proper methods for electrical safety. The student will be instructed in the use of NFPA 70E electrical safety book and the requirements for arc flash protection.

ELE-155
2.00
National Electrical Code I
This course will introduce students to the National Electrical Code (NEC), Occupational Safety and Health Administration (OSHA), and local building codes. Students will learn the correct terminology and wiring requirements to conform and established safe electrical wiring practices.

ELE-156
2.00
National Electric Code II
This course will expand on the principals introduced in National Electric Code 1. The student will learn the principles of the approved wiring methods, boxes, service installations, feeder installations, introduction to grounding & bonding, conductor properties, raceways, motor installations.

ELE-158
2.00
National Electric Code III
This course will expand on the principals introduced in National Electric Code 2. The student will go into depth of how perform service and feeder calculations. The student will explore requirements for special locations and special equipment. The student will also be introduced into preparing for licensing exams.

ELE-162
1.00
Basic Wiring
This course will provide wiring regulations and practices for residential wiring as presented by the National Electrical Code, state and local building codes.

ELE-164
2.00
Residential Wiring
This course will provide wiring regulations and practices for residential wiring as presented by the National Electrical Code, state and local building codes.

ELE-167
3.00
Industrial Electrical Systems
The Industrial Electrical Systems course will provide students with the essentials of industrial electrical system installation and troubleshooting. Students will study electrical safety, installation and design of electrical systems, conduit bending practices, industrial electrical diagrams, transformers and power distribution systems.

ELE-170
2.00
Power Distribution
This course will provide students with hands on experiences in electrical power distribution. Students will connect, construct and troubleshoot electrical systems consisting of transformers and power distribution panels. All wiring activities will be done in accordance with National Electrical Code and safety procedures will be stressed to comply with OSHA requirements.

ELE-187
4.00
Advanced Industrial Electrical Systems
The advanced Industrial Electrical Systems course will provide students with the essentials to install and maintain electrical systems related to industry in today's environment. Students will receive hands-on training. Electrical safety practices, installations, repair, maintenance, and preventative maintenance will be the emphasis of study.

ELE-195
3.00
Motor Controls
This course will provide students with experiences related to electric motors, motor controls and relay logic in an industrial environment. Students will learn to apply ladder logic diagrams to install, maintain and troubleshoot motors and motor control circuits. Students will learn how to troubleshoot direct and alternating current motors and their control circuits. Motor replacement requirements are covered along with the NEC as it applies to motor circuits.

ELE-198
2.00
Solid State Motor Controls
This course will provide students experiences installing and maintaining systems with solid-state motor control devices. Students will install, program and troubleshoot systems with variable frequency drives, soft start motor starters, and solid-state motor control devices.

ELE-204
3.00
Programmable Logic Theory
This course will provide students with experiences related to Programmable Logic Controllers. Emphasis will be given on the Allen Bradley SLC 500, RSLinx and RS500 software. Students will identify and install hardware and software associated with Programmable Logic Controllers. Students will create, edit, and apply instruction sets to programs and also learn how to troubleshoot problems using a PLC.

ELE-205
3.00
Advanced Programmable Controllers
Students will apply advanced instruction sets including analog input and output sequencers, subroutines, and message instructions. Data manipulation and file structure will also be covered.

ELE-221
3.00
Instrumentation & Control
Students will learn the basics of closed- and open-loop industrial process control systems. Emphasis will be placed on the analog input of transducer-based sensors, analog signal conditioning, opto-isolation, and thyristor and relay power control circuitry.

ELE-245
4.00
Integrated Motion Control & Robotics
This course will introduce students to touch screen graphic displays, PLC motion instructions, and 6-axis robotic equipment used in many aspects of industry. In addition to learning proper wiring and installation practices, the students will create graphics programs, PLC programs, and robot programs, which will be used to operate integrated multi-axis motion systems, for hands-on experience in robotic automation.

ELE-250
3.00
Math for Electricians
This course is designed to increase the proficiency of the student in the application of technical arithmetic, algebra, and basic trigonometry. Students will be introduced to computer number systems with the associated conversions, logical functions.

ELE-932
4.00
Electrical Technologies Internship
The student will be able to apply classroom instruction in a real world industrial environment.

ELE-949
1.00
Spec Top: Electrical
This course, usually offered on a limited basis only, provides an in-depth study on a topic of general interest pertaining to this department.

EMERGENCY MEDICAL SERVICES

EMS-113
3.50
Emergency Medical Responder
This course is a combined lecture/lab course which has been developed by the United States NationalHighway Traffic Safety Administration. The course follows the January 2009 National Emergency Medical Services Education Standards for the Emergency Medical Responder (EMR). This course emphasizes patient assessment and patient care procedures at the Emergency Medical Responder level. Patient assessment is introduced early and is reinforced with each new skill learned. Instruction is related to entry-level patient assessment in areas of basic life support, cardiac arrest, trauma, and medical emergencies. Skills practice sessions are scheduled throughout the program to provide an opportunity for students to apply the new skills they learn and to reinforce previous skills. Upon successful completion of the course students are eligible for National Registry of EMTs testing at the Emergency Medical Responder level. Student must be 17 years of age at time of enrollment, be able to speak, write, and read English and possess a valid driver's license. Current BCLS recognition at the Healthcare Provider (American Heart Association) or Professional Rescuer (American Red Cross) level is required prior to certification testing.

EMS-200
8.00
Emergency Medical Technician
This course is a combined lecture/lab/clinical course which has been developed by the United States National Highway Traffic Safety Administration. The course follows the January 2009 National Emergency Medical Services Education Standards for the Emergency Medical Technician (EMT). This course provides the student an opportunity to supply cognitive knowledge and psychomotor skills in the classroom, hospital, and pre-hospital setting. Students receive a letter grade for the classroom and lab portions of the course. The clinical portion is graded on a pass/fail basis. Instruction is related to patient assessment in areas of basic life support, cardiac arrest, trauma, and medical emergencies. Students must complete a minimum of 32 hours of clinical/field time to successfully complete the course. Upon successful completion of this course students will be eligible to take National Registry of EMTs certification testing at the Emergency Medical Technician level. Students will be required to undergo a national criminal background check and State of Iowa child/adult abuse registry check prior to clinical rotations. Mandatory reporter training and a health physical are required prior to starting clinical/field rotations. The cost of obtaining these requirements is in addition to course tuition and fees. Information on how to satisfy these requirements will be distributed the first night of class. Student must be 17 years of age at time of enrollment, be able to speak, write, and read English and possess a valid driver's license. Current BCLS recognition at the Healthcare Provider (American Heart Association) or Professional Rescuer (American Red Cross) level is required prior to starting class.

EMS-760
9.00
NSC Paramedic 1
This course is designed to prepare the student for the Paramedic level as outlined by the 2009 National EMS Education Standards for the Paramedic. The student is introduced to the Paramedic career field. Concepts taught include medical/legal considerations, the roles and responsibilities of the paramedic, anatomy and physiology, patient assessment techniques, medication administration, pharmacology, and life span development. Students will complete a 90 hour clinical experience in the hospital setting. Clinical emphasis will be devoted to outpatient surgery and emergency departments. Students must be currently certified at the EMT-Basic/EMT or higher level, be at least 17 years of age, have a high school diploma or equivalent, be able to speak, write, and read English. Current BCLS recognition at the Healthcare Provider (American Heart Association) or Professional Rescuer (American Red Cross) level is required prior to starting NSC Paramedic 1. Students will be required to undergo a national criminal background check and State of Iowa child/adult abuse registry check prior to starting clinical rotations. Mandatory reporter training and a health physical are required prior to starting clinical/field rotations. The cost of obtaining these requirements is in addition to course tuition and fees. Information on how to satisfy these requirements will be distributed the first night of class.
Prerequisite(s): EMS-200 EMS-211 HSC-113 BIO-168 Students must be currently certified at the EMT-Basic or higher level, be at least 17 years of age, have a high school diploma or equivalent, be able to speak, write, and read English, and hold a current course completion card in CPR prior to starting NSC Paramedic 1.

EMS-761
9.50
NSC Paramedic 2
This course is a continuation of NSC Paramedic 1. Pulmonology, advanced airway management, cardiology, and neurology will be discussed. Students will complete a 150 hour clinical experience in the hospital setting. Clinical emphasis will be devoted to the operating room, emergency department, coronary care department, and respiratory therapy departments.
Corequisite(s): EMS-810
Prerequisite(s): EMS-760

EMS-762
6.50
NSC Paramedic 3
This course is a continuation of NSC Paramedic 1 and 2. Head, ear, eye, nose, and throat disorders, endocrinology, immunology, gastroenterology, renal/urology, medical musculoskeletal disorders, cutaneous, toxicology, hematology, and infectious/communicable diseases, behavioral emergencies, gynecological emergencies, obstetrics, neonatology, pediatrics, geriatrics, and abuse/assault will be discussed. In addition students will discuss environmental emergencies, thoracic drainage systems, collagen vascular diseases, basic blood chemistries, central line monitoring and patients with agitated delirium. Students will complete 90 hour clinical experience in the hospital and prehospital setting. Clinical emphasis will be devoted to the emergency department, intensive care unit, coronary care unit, pediatrics, labor and delivery, and psychiatric departments. Students may begin field experience time with prehospital EMS agencies.
Prerequisite(s): EMS-761, EMS-810

EMS-763
9.50
NSC Paramedic 4
This course is a continuation of NSC Paramedic 1 - 3. Care of the patient with special challenges and chronic illnesses will be discussed. Students will learn how to effectively manage a multiple casualty incident, gain Haz-Mat awareness, how to safely and effectively transport their patient, how to operate at a crime scene, and gain rescue awareness. Trauma and assessment based management will be discussed. Students will perform 150 hours of clinical time in the hospital and prehospital setting. Clinical emphasis will be devoted to the emergency department, intensive care unit, coronary care unit, pediatric department, labor and delivery department, and psychiatric department. Students will be expected to gain prehospital field experience on an ambulance or fire based EMS service.
Corequisite(s): EMS-815
Prerequisite(s): EMS-762

EMS-764
8.50
NSC Paramedic 5
This course is a continuation of NSC Paramedic 1 -4. Students will review previous program course content and practice NREMT Paramedic psychomotor examination skills stations. Students will prepare for the NREMT-Paramedic psychomotor and cognitive exams. Students will perform a 120 hour clinical/field experience to obtain program goals. Students will perfrom a minimum of a 60-hour field internship which is included in the 120-hour clinical/field experience requirement. The emphasis should be on a field internship with an ambulance service or fire based EMS agency.
Corequisite(s): EMS 820 and Social Science or Humanities elective from AA approved list
Prerequisite(s): EMS-200, EMS-760, EMS-761, EMS-810, EMS-762, EMS-763, EMS-815, BIO-168, HSC-113, BIO-173, ENG-105, ENG-106, SPC-112, PSY-111

EMS-810
1.00
Advanced Cardiac Life Support
This course is designed to provide the student with advanced emergency cardiovascular knowledge and skills. Treatment protocols will be based on the current American Heart Association guidelines. Completion of a cardiac dysrhythmia course is highly recommended. If a cardiac dysrhythmia course has not been taken students must seek approval from the EMS Coordinator prior to taking this course. This course is offered pass/fail.
Prerequisite(s): EMS-760 EEMT-P, or Paramedic certification, RN licensure, Respiratory Therapist licensure or completion of EMS 760

EMS-815
1.00
Pediatric Advanced Life Support
This course is designed to provide the student with the knowledge and skills necessary to care for newborn and pediatric patients in emergency medical situations. Treatment protocols will be based on the current American Heart Association guidelines. Completion of a cardiac dysrhythmias course is highly recommended. If a cardiac dysrhythmias course has not been taken students must seek approval from the EMS Coordinator prior to taking this course. This course is offered pass/fail.
Prerequisite(s): EMS 762 EMT-P, or Paramedic certification, RN licensure, Respiratory Therapist licensure.

EMS-820
1.00
Prehospital Trauma Life Support
This course is designed to provide the student with the knowledge and skills necessary to care for patients in emergency trauma situations. The course is based on the current National Association of Emergency Medical Technician's Pre-hospital Trauma Life Support (PHTLS) curriculum. This course is offered pass/fail. Student must have - EMT or higher EMS certification or RN licensure.

ENGLISH COMPOSITION

ENG-025
4.00
Basic Writing
This course focuses on the rules of basic grammar, mechanics, punctuation skills, academic writing style, and formatting guidelines. Students are introduced to and will practice sentence structure, paragraph construction, and the essay writing process. Also covered in class are study skills, reading strategies, time management, job-seeking strategies, and an introduction to research and citing. The course prepares the student for ENG 101 and ENG 105. This course does not meet graduation credit requirements for certificate, diploma, general studies, or associates degree programs. In order to move to ENG-101, students must earn a CP or above OR a 3-4 on the ACCUPLACER WritePlacer Exam.

ENG-096
5.00
Fundamentals of Writing
This course will help students develop their grammar skills based on their individual needs in order to prepare them for ENG-105. More comprehensive than Elements of Writing (ENG 101), Fundamentals of Writing will also help students learn and improve their basic writing, research, and documentation skills with an emphasis of sentence, paragraph, and essay development. Also, covered in class are basic study and reading skills, time management techniques, job-seeking skills, and an introduction to library skills. The course wraps up with a POST-COMPASS or equivalence exam. This course does not meet graduation credit requirements for certificate, diploma, general studies, or associates degree programs. Mandatory Placement Levels: ASSET: 23-34; COMPASS: 0-37; ACT: 0-13

ENG-101
3.00
Elements of Writing
In this course, students develop writing skills and critical thinking skills in order to prepare them for ENG-105. Students will complete writings with an emphasis on sentence, paragraph, and essay development, and practice research and documentation strategies. Also covered in class are study skills, reading strategies, time management, job-seeking strategies, and oral presentations. At the end of the course, students will take the ACCUPLACER WritePlacer or another placement exam. In order for students to move to ENG-105, students must earn a CP or above in the course OR a 5+ on the WritePlacer Exam OR a 4 on the WritePlacer and 66+ on the ACCUPLACER Reading Comprehension (which may be taken at the Testing Center).

ENG-105
3.00
Composition I
This course focuses on the process of writing expressive and informative prose, incorporating oral, visual and electronic modes. It introduces research skills and critical thinking skills and reinforces critical reading skills. Mandatory Placement Levels: Accuplacer (WritePlacer):5+ OR 4+ and 66+ in Accuplacer Reading Comprehension; Reading Compass Writing: 65+; ACT 18+
Prerequisite(s): C or better in ENG-101 or the necessary score on the mandatory assessment and placement chart.

ENG-106
3.00
Composition II
This course is a continuation of ENG-105 with advanced work in library research techniques. The major focus is on persuasive and argumentative writing with an emphasis on critical thinking skills.
Prerequisite(s): C or better in ENG-105

ENG-111
3.00
Technical Writing
This course is designed to aid students in expanding skills in extracting, evaluating, and synthesizing information. Students will develop a working knowledge of the research process, including materials in the library. The course is an exercise in the processes of writing specific types of papers and reports, many of which students may be called upon to complete for other courses as well as on the job. The emphasis will be upon clear, concise, accurate, conventional, appropriate materials on a worthwhile subject or interest of a technical field as explained in each specific assignment.

ENG-221
3.00
Creative Writing
This course introduces students to the essential elements of three creative writing genres: short fiction, poetry, and creative non-fiction. Elements to be studied include plot, characterization, theme, setting, verisimilitude, figurative language, concrete and abstract language, form, rhythm, and meter. Students will review examples of work by professional writers and will produce their own creative works in each genre. The course will utilize workshops with students critiquing their classmates' work and revising their own drafts based on peer and instructor feedback. The course also includes independent journaling, in-class writing exercises, and a comprehensive final exam covering the elements of the three genres studied.

ENG-949
1.00
Special Topics
1,2,3, or 4 credit hours. This course, offered usually on a limited basis, provides an in-depth study on a topic of general interest pertaining to this department.

ENVIRONMENTAL SCIENCE

ENV-111
4.00
Environmental Science
Environmental science promotes an understanding of the Earth as a complex network of interacting organic and inorganic systems. It includes learning about the processes of science and information literacy. The course covers topics such as ecology, the Earth's resource challenges, air and water pollution, population growth, biodiversity, and sustainability. Three hours lecture, two hours lab.

ESL

ESL-265
4.00
English As a Second Language
This is a basic English course for those whose native language is not English. The emphasis is oral and written communication. The course is for those students who score in Elements of Writing. This class meets daily.

ESL-266
4.00
English As a Second Language 2
This is a continuation of ESL-265. Emphasis is on oral communication, basic grammar, vocabulary building and writing skills. This class meets daily.

FIRE SCIENCE

FIR-124
3.00
Building Construction
This course provides the components of building construction that relate to fire and life safety. The focus of this course is on firefighter safety. The elements of construction and design of structures are shown to be key factors when inspecting buildings, preplanning fire operations, and operating at emergencies.
Prerequisite(s): FIR-127

FIR-127
3.00
Fire Behavior and Combustion
This course explores the theories and fundamentals of how and why fires start, spread, and how they are controlled.

FIR-144
4.50
Fundamentals of Fire Fighting
This course provides information and skills needed to meet the fire-related performance objectives in NFPA 1001, Standard for Fire Fighter Professional Qualifications, Fire Fighter I.

FIR-145
3.00
Fire Strategies and Tactics
This course provides an in-depth analysis of the principles of fire control through utilization of personnel, equipment, and extinguishing agents on the fire ground.

FIR-149
3.00
Fire Protection Hydraulic & Water Supply
This course provides a foundation of theoretical knowledge in order to understand the principles of the use of water in fire protection and to apply hydraulic principles to analyze and to solve water supply problems.
Prerequisite(s): FIR-152

FIR-152
3.00
Fire Protection Systems
This course provides information relating to the features of design and operation of fire detection and alarm systems, heat and smoke control systems, special protection and sprinkler systems, water supply for fire protection and portable fire extinguishers.

FIR-200
3.00
Occupational Safety/Health in Emerg Serv
This course introduces the basic concepts of occupational health and safety as it relates to emergency service organizations. Topics include risk evaluation and control procedures for fire stations, training sites, emergency vehicles, and emergency situations involving fire, EMS, hazardous materials, and technical rescue. Upon completion of this course, students should be able to establish and manage a safety program in an emergency service organization.

FIR-213
3.00
Principles of Emergency Services
This course provides an overview to fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection/service; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics.

FIR-214
3.00
Legal Aspects of Emergency Services
This course introduces the Federal, State, and local laws that regulate emergency services, national standards influencing emergency services, standard of care, tort, liability, and a review of relevant court cases.

FIR-221
3.00
Fire Prevention
This course provides fundamental information regarding the history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use of fire codes, identification and correction of fire hazards, and the relationships of fire prevention with built-in fire protection systems, fire investigation, and fire and life-safety education.

FIR-226
3.00
Fire Administration I
This course introduces the student to the organization and management of a fire department and the relationship of government agencies to the fire service. Emphasis on fire service leadership from the perspective of the company officer.

FIR-235
3.00
Fire Investigation I
This course is intended to provide the student with the fundamentals and technical knowledge needed for proper fire scene interpretations, including recognizing and conducting origin and cause, preservation of evidence and documentation, scene security, motives of the firesetter, and types of fire causes.
Prerequisite(s): FIR-127, FIR-213, FIR-221, FIR-124, FIR-200

FIR-236
3.00
Fire Investigation II
This course is intended to provide the student with advance technical knowledge on rule of law, fire scene analysis, fire behavior, evidence collection and preservation, scene documentation, case preparation and testifying.
Prerequisite(s): FIR-235

FIR-400
3.00
Fire & Emergency Svcs Safety & Survival
This course introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavior change throughout the emergency services.

FOREIGN LANGUAGE-CHINESE

FLC-141
4.00
Elementary Chinese I
This is an online course with instructor video lectures, online interactive exercises at Pearson Book's My Chinese Lab, written homework that is submitted electronically, and a Moodle Discussion Board. A weekly live virtual classroom element will also be required.

FLC-142
4.00
Elementary Chinese II
This is a continuation of FLC 141. Further attention is given to the essentials of structure and vocabulary.

FOREIGN LANGUAGE - GERMAN

FLG-141
4.00
Elementary German I
This is a basic course in German. Attention is given to the essentials of structure and vocabulary.

FLG-142
4.00
Elementary German II
This is a continuation of FLG 141. Further attention is given to the essentials of structure and vocabulary.

FLG-241
4.00
Intermediate German I
This course is a review of the basic elements of the German language. There is intensive practice in oral communication and listening comprehension, using the audio-tutorial approach.

FLG-242
4.00
Intermediate German II
This is a continuation of FLG 241. Intensive practice is continued in oral communication and listening comprehension.

FLG-928
1.00
Independent Study-Germany
This course will enhance your knowledge of Germany, its people, and culture---by exploring the German countryside, visiting small villages and meeting the local people.

FOREIGN LANGUAGE - SPANISH

FLS-110
3.00
Spanish Professionals: Law Enforcement
1, 2 or 3 credits. This course is a beginning Spanish course designed to provide the basic vocabulary used in a particular profession. Culture as it applies to the profession will be a part of the course.

FLS-111
2.00
Spanish Professionals: Health
1, 2 or 3 credits - This course is a beginning Spanish course designed to provide the basic vocabulary used in a particular profession. Culture as it applies to the profession will be a part of the course.

FLS-141
4.00
Elementary Spanish I
This is a basic course in Spanish. Attention is given to the essentials of the structure and vocabulary.

FLS-142
4.00
Elementary Spanish II
This is a continuation of FLS 141. Further attention is given to the essentials of the structure and vocabulary using different resources in structural manner in the Spanish language.

FLS-241
4.00
Intermediate Spanish I
This course reviews the basic elements of the Spanish language. There is intensive practice in oral communication and listening comprehension by using different resources in structural manner.

FLS-242
4.00
Intermediate Spanish II
This course reviews the basic elements of the Spanish language. There is intensive practice in oral and listening comprehension by using different resources in structural manner.

FLS-271
4.00
Advanced Spanish I
Assignments in the Advanced Spanish I course apply grammar concepts in the development of writing and reading skills within the context of Hispanic culture. Students have weekly reading and writing assignments which enhance their knowledge of Hispanic culture. Grammar concepts and usage are observed in the readings and integrated into the requirements of the writing assignments. All readings are taken from authentic materials. These include short stories, publications such as AMERICAS, Hispanic newspapers (from the internet), and authentic sites on the internet.
Prerequisite(s): FLS-242 or 4 years of high school Spanish

FLS-272
4.00
Advanced Spanish II
This course is a continuation of FLS-271. The emphasis is on advanced study of structure through conversation and composition. Study units are drawn from the culture and civilization of the Spanish speaking world using authentic materials.

FLS-948
2.00
Special Projects
1, 2 or 3 credits - This course is open to students showing satisfactory preparation for topics chosen. It involves in-depth study, conferences and preparation of reports in the Spanish language. A student must initiate the request for a special project course.

FLS-949
3.00
Special Topics
1, 2 or 3 credits - This course, offered usually on a limited basis only, provides an in-depth study on a topic of general interest pertaining to this department in the Spanish language.

GEOGRAPHY

GEO-121
3.00
World Regional Geography
This introductory course in world geography acquaints the student with spatial relationships that exist between people, their culture, their environment, and places on earth.

GRAPHIC COMMUNICATIONS

GRA-102
2.00
Graphic Design Seminar
Students will utilize critical thinking skills in the discovery and implementation of graphic design. Students will compare and contrast both inside and outside pieces of design work and analyze the concepts used.

GRA-107
3.00
Introduction to Graphics Technology
Students will develop an understanding of the issues involved in the many facets of digital graphic industries. Students will evaluate what resolution to use when scanning artwork, manipulating images and displaying artwork to different electronic and printed media. Students will also become familiar with the language and terms commonly used in graphics and associated fields.

GRA-111
2.00
Vector Graphic I
Students will build a working knowledge of Adobe Illustrator, the graphic world's premier vector program for illustrations, logos, and graphics for print and the Web. On the technical side, students will learn how to create vector paths and bring them to life through the application of strokes and fills. On the creative side, students will learn how to use gradients, blends, and effects to make drawings more imaginative, attractive, and artistic. Hands on assignments explore project ideation to the delivery of a client-ready product.

GRA-115
2.00
Vector Graphic II
Students will build on basic Illustrator skills to gain a working knowledge of Adobe Illustrator's advanced features. Students will create illustrations and designs using filters, blends, gradient meshes, transparency, effects and symbols. Assignments include portfolio-building projects. Prerequisite: Vector Graphics I or instructor permission.
Prerequisite(s): GRA-111

GRA-158
3.00
Web Multimedia
Adobe Premiere is a digital video application used to create high quality videos for CD or web application. In this course you will learn to import video into Premiere and edit it to create short digital videos. Learn to add transitions, sound and text to your video.

GRA-166
3.00
Web Animations
Macromedia Flash is the leading tool for designing vector graphics and interactive multimedia for the Web. In this hands-on course, students will become skilled at the basics of drawing, tweening, and animating vector graphics. Become competent in creating rich web-user experiences such as user interfaces, navigation systems and complete websites that include images, text, animations, sound, and video.

GRA-176
3.00
Layout Design I
This course introduces students to Adobe InDesign, the page layout software program used by professional graphic artists to publish ads, business cards, brochures, postcards, newsletters, magazines, books, and more. Students learn how to format type, import images, use styles, generate tables, create swatches, and apply short cuts. Students learn typographic and publishing techniques, basic design principles, and how to apply spot and process color. Students will examine, troubleshoot, and package digital files for output to a commercial press and to the Web.

GRA-177
3.00
Layout Design II
Students work on advanced layout projects using Adobe InDesign. Emphasis is on working with tabs, tables, master pages and multipage documents layout. Students explore advanced techniques in creating effective communication pieces for a variety of print documents.
Prerequisite(s): GRA-176

GRA-949
1.00
Graphics Tech Special Topics
This course, usually offered on a limited basis only, provides an in-depth study on a topic of general interest pertaining to this department.

HEALTH CARE ADMINISTRATION

HCA-151
3.00
Oveview of Health Care
This course will explore the career field as it relates to health care. Items covered in class will include identifying components of health care system in the U.S., quality, size, scope and business functions of health care. The student is introduced to different sectors of health care.

HCA-153
3.00
Career Opportunities in Health Care
This course allows the student the opportunity to explore the professional opportunities related to health care. Students who complete this course will be able to identify leadership styles and skills, human resource issues, recruitment strategies, compensation practices, and various health care professions.

HCA-155
3.00
Technology and Health Care
This course will examine the informational technology used in health care. Students will be able to define the implications, efficiency and effectiveness of technology, and identify the evolution of technology. Past, current and future issues relating to technology will be discussed.

HCA-157
3.00
Health Care and Economics
This course provides students an overview of economics and how it affects health care. Items such as financing systems, products and the costs associated with health care will be examined.

HCA-159
3.00
Financial Matters in Health Care
This course provides students with the general principles of the financial aspects of the health care professionals. Students will be able to define financial terminology, understand budgeting and cost analysis, payment methods for services and understand the responsibilities of financial management. Current issues of building a budget will be examined.

HCA-161
3.00
Legal Issues in Health Care
This course will discuss the legal and ethical issues dealing in health care. The intent of the course is to clarify legal issues that might approach health care professionals. Students will be able to define negligence, malpractice and understand the importance of confidentiality.

HOSPITALITY/CULINARY MGT

HCM-108
3.00
Food Safety and Sanitation
This course addresses the responsibility of a food service worker / hospitality employee and the Safety and Sanitation Knowledge required in the food and hospitality industry. Understanding how to identify unsafe conditions and ways to correct or prevent them in the workplace.

HCM-128
2.00
Basic Baking and Lab
Students will gain knowledge of the basic skills to work in a professional bakery or restaurant. They will learn how to use equipment, proper mixing methods, formulas, and techniques to produce formulas of baking.

HCM-129
2.00
Advanced Baking and Lab
Students will learn how to bake more modern breads, muffins, cookies, scones, biscotti, cupcakes, cakes and more for the professional bakery and or restaurant.
Prerequisite(s): HCM-128

HCM-131
2.00
Basic Pastry and Lab
Students will gain knowledge of basic pastry by learning modern techniques in pastry doughs and fillings to be able to prepare the formulas for the professional bakery and restaurants.

HCM-132
2.00
Advanced Pastry and Lab
Students will build on their knowledge of basic pastry by learning modern techniques in pastry doughs and fillings to be able to prepare the formulas for the professional bakery and restaurants.
Prerequisite(s): HCM-131

HCM-143
3.00
Food Preparation 1
Introduces the student to the scientific principles used in food preparation. Involves preparation procedures and techniques to be used with fruits, vegetables, starch products, cheese, eggs, meat, poultry, and fish. Establishes criteria needed to produce a standard product.
Recommended Prerequisite(s) or Corequisite(s): HCM-144

HCM-144
3.00
Food Preparation Lab 1
Preparation of small servings of salads, starch, cheese, egg, meat, poultry and fish products using the techniques studied in lecture. Oral and written evaluation of each product.
Recommended Prerequisite(s) or Corequisite(s): HCM-143

HCM-148
3.00
Food Fundamentals
This course offers a broad introduction to the quality, appearance cost and types of food that are available. The ways to cook and care for your ingredients. Basic nutrition and other key roles of today's chefs and food service workers.

HCM-157
3.00
Food Preparation 2
This course will be the next level of the preparation of food, such as meat, poultry, fish and shellfish as well as fruit, vegetables and salad. It will cover all cooking techniques and dish preparations. This course is accompanied by HCM 158 Food Preparation Lab 2.
Prerequisite(s): HCM-143, HCM-144
Recommended Prerequisite(s) or Corequisite(s): HCM-158

HCM-158
3.00
Food Prep 2 Lab
This course is a laboratory to coincide with HCM 157 Food Preparation 2. The students will gain hands on experience in the preparations of meats, poultry, fish and shellfish as well as fruits, vegetables and salads
Prerequisite(s): HCM-143, HCM-144
Recommended Prerequisite(s) or Corequisite(s): HCM-157

HCM-178
4.00
Int'l Restaurant/Hotel Cuisine/Lab
Provides experience in the preparation of quality food production and practice in following recipes to prepare a variety of dishes with varying levels of difficulty Introduces various international cuisines and the ingredients and preparation methods used
Prerequisite(s): HCM-157, HCM-158

HCM-179
4.00
Adv Cuisine for Restaurant and Hotel
This course will provide experience in the preparation of quality food production and practice in following recipes to prepare a variety of dishes with varying levels of difficulty. The students will be introduced to various international cuisines including ingredients and preparation methods.

HCM-194
2.00
International Breads
Students will learn how to bake fresh international artisan breads using quality ingredients, and a variety of making and baking techniques. Students will learn to use creativity and a variety of equipment to the fullest. Proper handling and packaging of such breads will be additional skills taught.
Prerequisite(s): HCM-128

HCM-228
3.00
Culinary Nutrition and Food Science
This course addresses the relationship between nutrition and health. Practical, 'how-to' course focusing on nutrition as it relates to personal health; foods, and food preparation; menu planning and recipe modification; and marketing of nutritious menu items.

HCM-238
2.00
Menu Planning/Kitchen Design
This course applies the principles of menu planning and layout to the development of menus for a variety of types of facilities and service. The course will also strongly examine the kitchen design, and facility layout.

HCM-240
2.00
Menu Planning and Design
This course applies the principles of menu planning and layout to the development of menus for a variety of types of facilities and service. The course will also strongly examine the kitchen design, and facility layout.

HCM-242
2.00
Event Planning and Customer Service
This course will cover all aspects of event planning and customer service relating to the restaurant and hospitality fields. Student will engage in a hands on learning experience of dealing with real life customers and planning events such as company parties or weddings.

HCM-254
2.00
Purchasing for Profit and Loss
This course teaches the principles and methods of food purchasing with emphasis on specifications and grading of various food products. The course includes financial procedures and controls used in the food service industry.

HCM-259
2.00
Jams, Jellies, and Preservatives
This course will provide basic knowledge in the preserving and saucing, fruits, vegetables, and preserves for use in professional kitchens and bakeries.

HCM-263
3.00
International Cuisine
This course offers the students a greater range of ingredient knowledge, taking the fundamentals learnt in the first year and stretching their ability and talent with a much more diverse and varied mixture of cooking techniques and styles while incorporating modern restaurant skills and methods.

HCM-266
3.00
Culinary Math
This is a course that develops applications of mathematics necessary in hospitality education, especially in the area of food trades. Mathematical concepts and techniques that are introduced and developed in Pre-Algebra are used to interpret, model and solve a variety of problems relating to the food industry. Topics include dry and liquid measurements, measurements by weight, adjusting and costing recipes, yield percentage, basic nutrition, and simple business form and report preparation and analysis

HCM-272
2.00
Garnishing and Finishing Techniques
This course is designed to illustrate the many and varied ways chefs can improve dishes with professional garnish skills and presentation methods. This course will also provide students training in the qualities of food service professionalism.

HCM-279
3.00
Accounting for Hospitality
This course will provide a balanced mix of accounting theory and practice, tailored to the special needs of the hospitality service industries. It gives attention to the unique accounting and operating characteristics that are of major concern to managers in the hospitality industry in the new millennium. In simple, straightforward language, this book helps managers in the hospitality industry acquire a basic understanding of financial statements, payroll, office calculator's and cost accounting. Current coverage of emerging issues and techniques are covered.

HCM-285
4.00
Advanced Food Prep
This course offers the students a greater range of ingredient knowledge, taking the fundamentals learnt in the first year and stretching their ability and talent with a much more diverse and varied mixture of cooking techniques and styles while incorporating modern restaurant skills and methods.
Prerequisite(s): HCM-294

HCM-286
4.00
Advanced Food Preparation 2
This course offers the students a greater range of ingredient knowledge, taking the fundamentals learnt in the first year and stretching their ability and talent with a much more diverse and varied mixture of cooking techniques and styles while incorporating modern restaurant skills and methods

HCM-291
2.00
Cake Decorating
This course introduces the basics of how to decorate cakes that look and taste great. The lessons will consist of how to prepare the cakes and decorate with borders, flowers, leafs, stars, and other designs that make the cake look professional. Students will do actual designs and techniques with frosting in each class and will decorate a complete cake in various sessions throughout the class.

HCM-292
3.00
Food Preparation
This course offers instruction in the fundamentals of basic cooking skills, use of equipment, kitchen safety and basic recipes that are foundations for all culinary learning.

HCM-293
2.00
Advanced Cake Decorating
Students will learn advanced skills in cake decorating, frostings, sculpting and design. The knowledge will help to make professional cake decorations in flowers, fondant, icings and much more for the modern baker.
Prerequisite(s): HCM-128, HCM-291

HCM-294
3.00
Food Preparation 2
This Course offers instruction in the Fundamentals of basic cooking skills, use of equipment, kitchen safety and basic recipes that are the foundations for all culinary learning.
Prerequisite(s): HCM-292

HCM-297
2.00
Chocolate Confections
Students will learn the origins of chocolate and its history. The production of chocolate and chocolate tempering and molding, baking and tasting of chocolate. Students will learn traditional and modern plating and creating of chocolate and candy confections.

HCM-298
2.00
Knife Skills
This course offers instruction in the proper use of knives and other culinary equipment and allow gradual growth and confidence in ability with the tools of the trade and allow all students to become proficient in this most important of tasks.

HCM-299
3.00
Creative Desserts
This course will utilize all skills taught throughout the program so that students will create individual or multi portion desserts with a high level of difficulty in presentation and garnish.
Prerequisite(s): HCM-128

HCM-300
2.00
Beverage Management
This course will familiarize the student with all aspects of beverage service including wine and alcohol laws. The basic mechanics of beverage preparation, sales and promotion will be covered. This course will follow the ServSafe curriculum.

HCM-305
2.00
Meat and Fish Fabrication
Designed to help the students grasp the principles of industry techniques when manually prepping proteins for restaurant or hotel menus. A large selection of poultry, meat and both round a flat fish will be used.
Prerequisite(s): HCM-292, HCM-294

HCM-332
2.00
Hospitality Personnel Management
This course is designed to provide the students with the human resource qualities that are required in the industry, plus diversity, regulations and legal requirements will be covered. Students will learn how to deal with situations that occur in the field and gain an understanding of the needs of employees and customers.

HCM-336
3.00
Event Planning & Customer Service 1
This course will cover all aspects of event planning and customer service relating to the restaurant and hospitality fields. Student will engage in a hands on learning experience of dealing with real life customers and planning events.

HCM-337
3.00
Event Planning and Customer Service 2
Designed to help the students grasp the principles of event management and planning strategies for all types and sizes of events, as well as provide an education in the art of high end customer service.

HCM-511
3.00
Food Technology Internship
This course provides an opportunity to gain practical experience through on-site training at Willow Ridge Golf Course or an instructor approved off-site location. The student will work in all areas of the restaurant facility including front and back of house. A letter grade of "C" or higher must be earned in this course to satisfy the program graduation requirements.

HCM-513
1.00
Hospitality Professionalism
This course will give the students hands-on experience working in a real life restaurant. Students will work in the kitchen as well as in the front of the restaurant serving guests.

HCM-518
1.00
Baking Internship
This course entails a supervised work experience in the major field, which provides the opportunity to make practical application of the knowledge and skills attained. An individualized instructional management plan will determine goals to be accomplished. The internship requires 60 verified work hours.

HCM-519
1.00
Hosptiality Professionalism II
This course will give the students hands on experience working in a real life restaurant. Students will work in the kitchen as well as in the front of the restaurant serving guests.
Prerequisite(s): HCM-513

HCM-592
3.00
Convention Management
Introduces the principles of convention management, event planning and food service. The students will learn the how, what and when of convention management, as well as being hands on with events and conventions organized in conjunction with the college through menu planning, purchasing, equipment needs and rentals, and food service operations.

HCM-608
3.00
Intro to Hospitality
A concise introduction to the many areas of the hospitality industry including foodservice lodging tourism and recreational facilities.

HCM-609
3.00
Hospitality Management
This course will give students a concise background into what is required of restaurant, hotel or food service manager, and to prepare them for the many facets and challenges of management and to arm them with all the knowledge they will need when the "I need to see the Manager" situation arises.

HCM-613
3.00
Hospitality Marketing and Sales
This course is designed to provide the students with the importance of marketing in the food service industry. They will learn that all facets of marketing will have a direct affect on the business. The students will gain an understanding of the importance of providing for customer needs which will make the student a better manager.

HCM-949
1.00
Introduction to Food
This course, usually offered on a limited basis only, provides an in-depth study on a topic or general interest pertaining to this department

HEATING AND AIR CONDITIOINING

HCR-102
3.00
Intro to Hvac-R
An introduction to HVAC systems, with an emphasis on electrical and mechanical fundamentals skills, including AC and DC electricity; electrical power supplies and wiring materials; meter operations; mechanical math and measurement; fasteners; and PVC assembly.

HCR-104
2.00
Hvac-R Tools and Terminology
This course will cover the terminology and usage of both hand and power tools used within the HVAC-R industry. A special emphasis will be placed on the proper operation and safety needed when utilizing such tools.

HCR-135
2.00
Hydronics
This course will cover installation, servicing, troubleshooting and repair of hydronic heating systems as they relate to residential and commercial heat loss requirements. This will include pumps and zoning equipment.

HCR-145
3.00
Intro to Heating Systems
This course covers the essential knowledge and skills of installing, maintaining, servicing, troubleshooting, and repair of various heating systems, including forced air, convection, hydronic, and radiant. Gas LP, Natural gas, and electrical systems will be examined. Emphasis will be placed on gas and electric forced air systems, but heat pumps (air to air and ground source) will be introduced. Hands-on labs will be an extensive part of the course.

HCR-170
2.00
Refrigeration and Small Appliances
This course is designed to better the understanding of refrigeration systems while adding troubleshooting and repair of other types of appliances.

HCR-210
4.00
Residential Ac Systems
This course outlines the basics of residential air conditioning, heat pumps, and insulation. The discussion includes how air conditioning works and the components of the systems as well as common insulation materials. It will help you determine types of systems and whether they are operating properly.

HCR-245
2.00
Troubleshooting Air Conditioning Systems
The purpose of this course is to introduce the student to the fundamentals of troubleshooting by utilizing a practical and systematic approach to locate the repair air conditioning and heat pump system malfunctions. The students will also have the opportunity to study, in detail, the motors and controls used in today?s air conditioning systems. Topics to be covered include basic electric circuits, electrical test meters, motors and controls, diagnosis of electrical and mechanical malfunctions, and special emphasis on wiring diagrams.

HCR-255
2.00
Troubleshooting Heating System
The purpose of this course is to introduce the student to the fundamentals of troubleshooting by utilizing a practical and systematic approach to locate the repair heating system malfunctions. The student will also have the opportunity to study, in detail, the motors and controls used in today's heating systems. Topics to be covered include basic electric circuits, electrical test meters, motors and controls, diagnosis of electrical and mechanical malfunctions, and special emphasis on wiring diagrams.

HCR-303
1.00
Refrigeration Fundamentals
This course is an introduction to the principles of refrigeration including refrigeration, refrigerant cycle and system components. In this course students will study the basic installation and repair of air-conditioning systems. Topics include the principles of the refrigeration cycle, the components of an air conditioning system, and recovering, charging and evacuation of systems following EPA guidelines. The course will also cover the refrigeration tubing system and soldering and brazing.

HCR-350
2.00
Mechanical Code I
This course will introduce students to the I.M.C Code and local building codes. Students will learn correct terminology and requirements to conform to established industry standards.

HCR-355
2.00
Mechanical Code II
This course will expand on the principal introduced in Mechanical Code I. Students will learn principals of approved installations, wiring, and other industry based services.

HCR-445
2.00
HVAC System Design
This course is designed to cover the concepts of modern residential heating and cooling system design. Topics will include load estimating, basic psychometrics, equipment sizing and selection, as well as duct design.

HCR-505
3.00
Air Distribution
This course is designed to cover the methods for moving, measuring and treating air. Students will go over blower performance sheets, static pressure and pressure drop.

HCR-717
3.00
Blueprint Reading
This course is designed to increase the proficiency of the student in the making of material take off sheet from a print. The student will also be introduced into common building and HVAC symbols.

HCR-932
4.00
Internship
This course provides on-the-job training giving the student experience and practical application of the competencies learned in the heating portion of the Air Conditioning, Heating, and Refrigeration Program. The internship is coordinated by the college instructor and supervised by an industry professional at the work site.

HISTORY

HIS-112
4.00
Western Civilization:Ancnt to Early Mod
This course is a comprehensive study of the major political, social, economic, cultural and philosophical movements in Western Civilization from the Stone Age to the Age of Enlightenment.

HIS-113
4.00
Western Civilization:Early Mod to Pres
This course is a comprehensive study of the major political, social, economic, cultural and philosophical movements in Western Civilization from the Age of Enlightenment to the Present.

HIS-151
3.00
U.S. History to 1877
This course includes the political, socio-cultural, and economic factors in the development of American Civilization from the earliest European explorers until the end of the Civil War and Reconstruction. Topics to be explored are colonial foundations, revolution, confederation, and constitution; nationalism and democracy; sectional disunity, Civil War, and reunion.

HIS-152
3.00
U.S. History Since 1877
This course includes the political, socio-cultural, and economic factors in the development of American Civilization from the end of Reconstruction to the present. This course will focus on Industrialization; the emergence of the United States as a great power; boom and depression; war, internationalism and Cold War; and modern industrial society.

HIS-211
3.00
Modern Asian History
This course is an introductory study of the main East Asian civilizations today. The course will focus primarily on China, Japan, Taiwan, Korea, and Vietnam.

HIS-251
3.00
U.S. History 1945 to Present
This course explores key themes and topics in the recent American history, from the end of World War Two to the present, including the Cold War; major governmental initiatives; domestic politics; social movements; political economy; and culture.

HEALTH SCIENCES

HSC-104
2.00
Introduction to Health Care
Students will have a basic introduction to the health care delivery system, professionalism and legal and ethical responsibilities of the health care worker. The communication process will be introduced as well as an understanding of patients' needs and behavior. Aspects of patient care will be discussed involving safety, infection control, transfer techniques and vital signs.

HSC-113
2.00
Medical Terminology
The student will study terminology of the human body systems in more depth than HSC-112 Medical Terminology. The emphasis will be on recognition and functional vocabulary related to medical science. Definitions, standard abbreviations, pronunciations, correct spelling, will be included. Students with prior experience in a health field may elect to "test out" of medical terminology. See Dean of Health Science for additional information.

HSC-172
3.00
75 Hour Nurse Aide Course T9905
This course provides students with a basic level of knowledge and skills to provide safe, effective resident care. This nurse aide course meets the training requirements of The Omnibus Budget Reconciliation Act of 1987 (OBRA) for aides working in nursing facilities (NF) and skilled nursing facilities (SNF).

HSC-278
4.00
Limited Practice Radiography
This course is designed to meet requirements of Chapter 42 of the Rules and Regulations for Radiation Emitting Equipment. The course emphasis is placed on providing the knowledge and skills necessary to provide maximum protection from ionizing radiation for the patient and personnel. Included in the course is basic physics as applied to x-ray machines and technology, film processing, patient positioning and preparation for radiographs of the chest and extremities, image evaluation, factors that affect the image, and radiation biology and protection.

HSC-960
8.00
CT Internship
This course is available to qualified candidates that are accepted into the internship. This course is designed to enable accepted students to become proficient in Computed Tomography (CT) exams. The student will begin their internship by observing and assisting practicing CT Technologist conducting a variety of CT exams. As the student gains knowledge and experience in the various CT exams he/she gradually moves into an independent clinical performance stage. A student must independently, with direct supervision, perform the required amount of exams to complete the CT internship. A record of practice procedures and competency must be documented for ARRT competency. Students need to be registered by ARRT in Radiologic Technology, Nuclear Medicine or Radiation Therapy. Must have an Iowa Permit to Practice.

HSC-965
8.00
MRI Internship 1
This course is available to qualified candidates that are accepted into the internship. This course is designed to enable accepted students to become proficient in Magnetic Resonance Imaging (MRI) exams. The student will begin their internship by observing and assisting practicing MRI Technologist or Radiologic Technologists conducting a variety of MRI exams. As the student gains knowledge and experience in the various MRI exams he/she gradually moves into an independent clinical performance stage. A student must independently, with direct supervision, perform the required amount of exams to complete the MRI Internship. A record of practice procedures and competency must be documented for ARRT competency and internship completion. Student need to be registered by ARRT in Radiologic Technology, Nuclear Medicine or Radiation Therapy. Must have an Iowa Permit to Practice.

HSC-966
8.00
MRI Internship 2
This course is available to qualified candidates that have successfully completed HSC 965 MRI Internship 1.This course is a continuation of accepted students to become proficient in Magnetic Resonance Imaging (MRI) exams. The student will continue in their internship by observing and assisting practicing MRI Technologist or Radiologic Technologists conducting a variety of MRI exams. As the student gains knowledge and experience in the various MRI exams he/she gradually moves into an independent clinical performance stage. A student must independently, with direct supervision, perform the required amount of exams to complete the MRI Internship. A record of practice procedures and competency must be documented for ARRT competency and internship completion. Student must be registered by ARRT in Radiologic Technology, Nuclear Medicine or Radiation Therapy. Must have an Iowa Permit to Practice.

HSC-967
8.00
Ultrasound Internship I
This course is available to qualified candidates that are accepted into the internship. This course is designed to enable accepted students to become proficient in ultrasound (US) exams. The student will begin their internship by observing and assisting practicing US Technologist conducting a variety of US exams. As the student gains knowledge and experience in the various US exams he/she gradually moves into an independent clinical performance stage. A student must independently, with direct supervision, perform the required amount of exams to complete the US Internship. A record of practice procedures and competency must be documented for ARRT compentency and internship completion. Pre-requisites and/or Student must be registered by ARRT in Radiologic Technology, Nuclear Medicine or Radiation Therapy. Must have an Iowa Permit to Practice.

HSC-968
8.00
Ultrasound Internship 2
This course is available to qualified candidates that have successfully completed HSC 967 Ultrasound Internship 1. This course is a continuation of accepted students to become proficient in ultrasound (US) exams. The student will continue their internship by observing and assisting practicing US Technologist conducting a variety of US exams. As the student gains knowledge and experience in the various US exams he/she gradually moves into an independent clinical performance stage. A student must independently, with direct supervision, perform the required amount of exams to complete US Internship 2. A record of practice procedures and competency must be documented for ARRT competency and internship completion.
Prerequisite(s): HSC-967

HSC-969
8.00
Ultrasound (us) Internship 3 - General
This course is available to qualified candidates that have successfully completed HSC 968 Ultrasound (US) Internship 2. This course is a continuation of the internship by observing and assisting practicing US Technologist conducting a variety of US exams. As the student gains knowledge and experience in the various US exams he/she gradually moves into an independent clinical performance stage. A student must independently, with direct and indirect supervision, perform the required amount of exams to complete US Internship 3. A record of practice procedures and competency must be documented for ARRT competency and internship completion.

HSC-970
10.00
Ultrasound Internship 3 - Vascular
This course is available to qualified candidates that are accepted into the internship. This course is designed to enable accepted students to become proficient in ultrasound (US) exams. The student must successfully complete HSC 967 & 968 Internships 1 and 2. The student will assist practicing US Technologist conducting a variety of US exams. As the student gains knowledge and experience in the various US exams he/she gradually moves into an independent clinical performance stage. A student must independently, with direct and indirect supervision, perform the required amount of exams to complete the US Internship. A record of practice procedures and competency must be documented for ARRT competency and internship completion.

HUMAN SERVICES

HSV-135
3.00
Women's Issues
This course will examine the issues that women may bring to the counseling or social work settings. A review of the history of women and their roles in society will be utilized as background information. In addition, the life-cycle of women, gender stereotypes, mental health issues and female sexuality will be studied. Using this information, the course will address common reasons women often seek counseling.

HSV-162
3.00
Intro to Human Disabilities and Services
This course introduces careers related to working with people with disabilities. It includes an introduction to special education, residential services, vocational services, and other services for children and adults with disabilities. The student will be introduced to specific disabilities, ways people with disabilities learn, child development, and literacy. It covers professionalism, teamwork, communication skills, and behavior management. The student will complete service learning projects.

HSV-180
1.00
Ethics for Human Services Professionals
The basic knowledge and responsibility of professional ethics and boundaries in relationship to clients, society, and professional peers will be studied. The course will focus on the interaction between the human services provider and those they work with. The course will concentrate on the importance of boundaries, ethics, and confidentiality.

HSV-220
3.00
Introduction to Counseling Theories
This course provides instruction in skills of observing and recording behavior and organizing information into clear and logical reports. The course will also cover interviewing as a method of gathering and evaluating needs. It will introduce the student to the skills of establishing open relations with a client and assisting the client in understanding their needs to incorporate a more satisfying behavior.

HSV-229
3.00
Group Facilitation Techniques
This course will examine group interaction and processes. Attention will be given to how groups can be used to promote growth in their members as well as promote social change. The course focuses on developing an ability to identify community leadership and developing skills in mobilizing community resources to meet social needs.

HSV-255
3.00
Addictive Disease Concepts
This course will review the history of addictions and society issues. Students will examine the theoretical foundations and current concepts of the addiction process. The course includes the study of the physiological, psychological and sociological aspects of addictions, abuse and dependence. The classifications of basic pharmacology and psychoactive drugs plus the physiology impacts will be explored. Best-practice treatment modalities will be discussed.

HSV-269
1.00
Victim Advocacy
This course will review the complexities of domestic violence and victim advocacy. The course material will recognize abusive behaviors and demonstrate crisis intervention techniques. The focus will be also directed toward understanding victimization and violence dynamics in the home and the effects on children. Additional instruction will be provided in the use of effective victim empowerment techniques.

HSV-276
3.00
Social Justice and Advocacy
The course will look at advocacy with persons and groups who are oppressed and vulnerable. Student attention will address social injustice, poverty and discrimination plus victims of domestic assault. Advocacy will focus upon the development of the person and their environment for the fulfillment of basic human needs. This course will also explore diversity, advocacy boundary issues and ethics. Victim advocacy will also provide students the increased awareness of domestic violence elements and situations. The students will be able to identify the elements of assault dynamics. This course provides the students with oppression sensitivity and helpful intervention skills to address the oppression.

HSV-285
3.00
Case Management: Intake to Discharge
This course is a building block for courses which students will take as they continue their education for employment in the Human Services field. Students will learn how to compile relevant information on clients and how to formulate this information into treatment plans and service plans. Students will learn the role of the case manager and the four essential functions of case management. Students will learn the importance of ethics and confidentiality as well as how to effectively communicate with their clients. Students will also become familiar with the various assessment tools and forms used to diagnose, develop plans, and make recommendations for levels of care.

HSV-850
2.00
Human Services Field Experience I
The field experience is a program of supervised practice in which the students placed in various agencies learn through actual participation and observation. The experience provides a chance to apply the classroom learning experience to the field of work. In addition, the student gains many new skills and has an exposure to and gains an appreciation for the basic values of the social services.

HSV-854
1.00
Human Services Field Experience IA
Human Services Field Experience IA is the first course in a two-part series. The course involves supervised practice in which students in various agencies learn through actual observation and participation. The experience provides an opportunity to apply the classroom knowledge to the field of work. The students develop new skills, while being exposed to and gaining an appreciation for the basic principles of the human services.

HSV-855
1.00
Human Services Field Experience IB
This course is a continuation of HSV-854 Human Services Field Experience IA. The program of supervised practice continues as students in different agencies learn through actual observation and participation. The experience provides an opportunity to apply the classroom knowledge to the field of work. In addition, the students further develop helping skills while being exposed to and gaining an appreciation for the principles of the human services. Prerequisite: HSV-854 Human Services Field Experience IA
Prerequisite(s): HSV-854

HSV-928
3.00
Independent Studies
1, 2, or 3 credit hours - This course will provide students an opportunity to explore topics and projects to meet their own personal Human Services studies' interests. The students will create an outline of their independent study. The course may be an in-depth research topic, an unique community service project, or an academic capstone activity. A student must obtain written permission from the supervising staff member to enroll in this course.

HSV-949
3.00
Special Topics
The department will offer from time to time credit offerings in selected special areas of interest on a topical basis per semester.

HUMANITIES

HUM-113
3.00
Exploring the Humanities
This course will examine thematically the humanities, such as art, music, and literature. Students will attend live cultural opportunities like an art exhibition, a concert, a poetry reading, or a theatrical performance. Through direct experience, students will synthesize course material and evaluate the significance of the humanities as a form of human expression.

HUM-182
3.00
Digital App-Music, Art & Theatre
This course is designed to give students in the humanities (fine arts) a foundation in contemporary technology and methods used in today's studios. The class will cover illustrations, notation, productivity (office), and utility software used by artists, designers, and performers in the daily course of their profession. Hardware, from digital drawing tablets and digital cameras to MIDI and copy machines as tools-of-the-trade will be examined. Students will learn to create digital portfolios.

HUM-185
3.00
Technology and Social Change
This course is designed for students who are interested in technology and its impact on their lives and on the society in which they live. The focus is on examining modes of technology as catalysts of social change. The integration of readings, films, and experiences with the visual arts and music will provide a basis for comparison and analysis of the relationship between technology and social change.

INDUSTRIAL TECHNOLOGY

IND-108
2.00
Advanced Safety Technology
Students gain the ability to acknowledge hazard identification, avoidance, control and prevention, understanding of OSHA compliance and regulations, Importance of Safety and Health Training, general understanding of Recordkeeping.

IND-110
1.00
Cpr, First Aid and Safety
Students gain the ability to emphasize hazard identification, avoidance, control and prevention, understanding of OSHA compliance and regulations, importance of safety and health training, general understanding of First aid and CPR.

IND-116
2.00
Pneumatic & Hydraulic Systems
This course will cover the basic principles and hands-on applications of pneumatic and hydraulic systems. Students will learn how to read, interpret, and construct fluid systems schematic diagrams containing pneumatic and hydraulic component symbols.

IND-126
1.00
Precision Measurements Lab
This course will reinforce mathematical concepts learned in the Technical Math I course. Students will use machinist rules, micrometers, digital micrometers, vernier, height gauges and other precision measuring instruments to directly apply mathematical skills.

IND-127
1.00
Shop Operations
Students will learn the basics of metal shop work. Areas of instruction will include shop safety, proper use of hand tools, maintenance of tools and equipment, and fasteners.

IND-128
1.00
Blueprint Reading
This course will reinforce mathematical concepts learned in the Technical Math I course. Students will use machinist rules, micrometers, digital micrometers, vernier, height gauges and other precision measuring instruments to directly apply mathematical skills.

IND-183
4.00
Industrial Machine Maintenance
This course will introduce the student to a practical "hands-on" approach to the basic principles of industrial mechanics. The student will develop safety and troubleshooting skills needed to solve problems on real-life equipment used in industry today.

IND-184
2.00
Mechanical Processes
This course will cover the basic operation and maintenance of industrial systems. The student will learn the function and the role of a maintenance technician. Laboratory exercises will emphasize the importance of a positive mental approach to maintenance and the need to develop troubleshooting skills as well as mechanical skills.

IND-185
2.00
Predictive & Preventative Maintenance
This course will involve skill development in advanced mechanical maintenance procedures. The student will design, construct, and maintain industrial energy transfer systems. Techniques in preventive and predictive maintenance operations, utilizing the applications of laser alignment, thermography, vibration analysis, ultrasonic testing, and other functions will be covered.

IND-201
1.00
10-HOUR General Industry Training Course
The OSHA Outreach Training Program for General Industry provides training for entry level workers and employers on the recognition, avoidance, abatement, and prevention of safety and health hazards in workplaces in general industry. The program also provides information regarding workers' rights, employer responsibilities, and how to file a complaint. Through this training, OSHA helps to ensure that workers are more knowledgeable about workplace hazards and their rights.

IND-203
1.00
Careersafe Prof Dev - Gen Industry
CareerSafe Professional Development Program (CPDP) is designed to better equip education professionals with the requisite knowledge, skills, tools and resources necessary for increased safety orientation in the classroom and as a result, improve the learning experience for students. The CPDP increases the educator?s teaching skills through applied research and action learning. Educators are provided guided action learning that enables them to establish effective safety practices, apply their safety knowledge, and deliver safety training. Additionally, the CPDP supports educators with a number of knowledge assessments, analytical tools and data to support instructional decision-making. The CPDP empowers educators to work effectively with parent and community partners to provide students with advanced knowledge and skills in the area of school and workplace safety. Through the CPDP, educators and students become advocates for best practices in safety, especially planning and hazard avoidance.

IND-205
1.00
Osha 10-HOUR Construction Industry
The OSHA Outreach Training Program for Construction Industry provides training for entry level workers and employers on the recognition, avoidance, abatement, and prevention of safety and health hazards in workplaces in general industry. The program also provides information regarding workers' rights, employer responsibilities, and how to file a complaint. Through this training, OSHA helps to ensure that workers are more knowledgeable about workplace hazards and their rights.

IND-207
1.00
Careersafe Prof Dev - Construction
CareerSafe Professional Development Program (CPDP) is designed to better equip education professionals with the requisite knowledge, skills, tools and resources necessary for increased safety orientation in the classroom and as a result, improve the learning experience for students. The CPDP increases the educator?s teaching skills through applied research and action learning. Educators are provided guided action learning that enables them to establish effective safety practices, apply their safety knowledge, and deliver safety training. Additionally, the CPDP supports educators with a number of knowledge assessments, analytical tools and data to support instructional decision-making. The CPDP empowers educators to work effectively with parent and community partners to provide students with advanced knowledge and skills in the area of school and workplace safety. Through the CPDP, educators and students become advocates for best practices in safety, especially planning and hazard avoidance.

IND-208
2.00
Industrial Pumps and Drives
This course teaches students the basic principles of various types of industrial pumps and specialized drive systems required in their operation. Students will identify components, normal operating characteristics, routine maintenance, and common failures.

IND-314
1.00
Computer Maintenance Mgmt Sys
The focus of the course will teach the students the concepts of why CMMS software is needed and is an important part of a maintenance department. The students will learn the terminology and the operations of CMMS software. The students will be taught how to electronically receive, create & complete aspects of work orders.

IND-932
4.00
Internship
The student will be able to apply classroom instruction in a real world environment.

IND-949
3.00
Special Topic
This course, usually offered on a limited basis only, provides an in-depth study on a topic of general interest pertaining to this department.

JOURNALISM

JOU-121
3.00
Newswriting and Reporting
This course focuses on of the principles of news gathering and news writing, with emphasis on journalistic writing. Basic news story structure and development, news evaluation, news gathering methods, interviewing, craftsmanship, and reporting techniques in general are explored. Newspaper and other news and information media are analyzed. The course is particularly recommended for communications and journalism majors and those planning careers in news media, public relations, communications, corporate communication and news and informational multimedia.

JOU-200
3.00
AP Style Editing
Get ready to learn to think like an editor. If you're already starting to think like an editor, you're probably wondering about that singular "job." There are many editing positions, and editors' titles (and their meanings) vary widely from publication to publication and even to online media. A managing editor at a small newspaper may do all the combined tasks of an assistant editor, senior editor and caption writer at a national magazine. There are associate editors, field editors, contributing editors, editors-in-chief, articles editors and more. All of them, no matter what their duties, use the same set of skills. In this class you'll learn the basics, as well as many tricks of the trade.

JOU-210
3.00
Media Law and Ethics
This course examines issues related to freedom of speech, analyzing the rights, responsibilities, and restrictions defined by the 1st Amendment. Using the media as a framework for discussion, students will explore the changing definition of the term "journalist" while examining the constitutional, statutory, and judicial imperatives giving reporters favored status in the United States. Emphasis will be placed on understanding the evolution of the nation's court system and government's interest in restraining access or censoring information before publication. Using a case study approach, students will discuss current developments in libel, restrictions on access to public documents, censorship, privacy, and copyright infringement. The course will also explore social media law as it pertains to blogs, linking stories, and copyright.

JOU-941
1.00
Practicum
This course of study provides the student with the opportunity to experience hands-on learning through the creation and production of mass communications projects such as The Collegian, podcasts, web sites, and digital news programming. Its purpose is to synthesize previous educational experiences applicable to related occupations. It is to resemble, as closely as possible, a real-life work situation.
Prerequisite(s): C or better in JOU-121

LITERATURE

LIT-101
3.00
Introduction to Literature
This course includes training in understanding the forms of fiction: short story, drama, poetry, and novel. Attention is given to personal and social values as they appear in selected readings.

LIT-114
3.00
American Literature
This survey course examines a variety of American authors writing in different genres from the Puritans to the modern era. Students will examine the themes, philosophies, and styles of authors in relation to their social and cultural contexts. Students will be expected to read and to respond to the literature through both discussion and written work with an emphasis on literary analysis.

LIT-135
3.00
Film As Literature
This course provides an introduction to the essential elements of literature through the study of the visual medium of film. In class and on their own, students will watch, analyze, and discuss narrative films spanning several eras and genres, with particular emphasis on examining historical, cultural, political, spiritual, philosophical, and emotional contexts. Literary elements, including characterization, setting, theme, symbolism, and plot, will be explored in conjunction with technical and artistic elements of film, such as cinematography, mise-en-scène, sound, and editing.

LIT-155
3.00
Modern World Fiction
This course provides an overview of contemporary short stories and novels from around the world, focusing on fiction published from 1945 to the present. Students will read, analyze, and discuss literary works from several countries, with particular emphasis on historical and cultural contexts, characterization, setting, theme, form, style, imagery, and symbolism.

LIT-210
3.00
The Graphic Novel
This course emphasizes the genre of comic book writing and creation. This genre is a legitimate form of literature and is subject to similar scrutiny as a traditional literature course would require. The graphic novel will be explored and examined in its various forms, and thematic connections-historical, social, political, and cultural-will be made among texts, outside resources, and personal experiences.

MEDICAL ASSISTANT

MAP-115
6.00
Medical Office Management I
This course presents legal implications and ethical considerations relevant to healthcare. Basic administrative procedures performed in ambulatory healthcare settings are introduced to provide medical assistant students with a foundation for continued studies of the administrative duties relevant to the profession. The course encourages students to demonstrate critical thinking, and to incorporate knowledge gained into the performance of course competencies. This course is the first course of a two-semester sequence.
Corequisite(s): MAP-542, MAP-322, MAP-221, MAP-435, HSC-113

MAP-120
6.00
Medical Office Management II
This course expands on the administrative functions presented in MAP-115 Medical Office Management I, with emphasis on basic practice finances, third party reimbursement, and procedural and diagnostic coding. The course encourages students to demonstrate critical thinking, and to incorporate knowledge gained into the performance of course competencies. This course is the second course of a two-semester sequence.
Corequisite(s): MAP-555, MAP-325, MAP-226
Prerequisite(s): MAP-542, MAP-322, MAP-221, MAP-115, MAP-435, HSC-113

MAP-221
1.50
Medical Laboratory Procedures 1
This course presents basic medical laboratory procedures performed in ambulatory healthcare settings. The course begins with an introduction to the basic principles of medical asepsis and disinfection. Students will learn proper handwashing techniques, and how to properly disinfect. The course will introduce students to the lab, its departments, and regulatory agencies. The course concludes with a study of the basics of medical microbiology, including common bacterial diseases, specimens for testing, methods of bacterial disease prevention, and CLIA waived microbiology testing. The course encourages students to demonstrate critical thinking, and to incorporate knowledge gained into the performance of course competencies. This course is the first course of a two-semester sequence.
Corequisite(s): MAP-542, MAP-322, MAP-115, MAP-435, HSC-113

MAP-226
1.50
Medical Laboratory Procedures II
This course expands on basic medical laboratory procedures presented in MAP-221 Medical Laboratory Procedures I, with emphasis on urinalysis, hematology, and chemistry. Students will learn the basics of each department, specimens needed for testing, and how to perform the CLIA waived testing in each department. Students will also learn how to perform and collect specimens by capillary puncture and venipuncture. The course encourages students to demonstrate critical thinking, and to incorporate knowledge gained into the performance of course competencies. This course is the second course of a two-semester sequence.
Corequisite(s): MAP-555, MAP-325, MAP-120
Prerequisite(s): MAP-542, MAP-322, MAP-221, MAP-115, MAP-435, HSC-113

MAP-322
3.50
Examination Room Techniques I
This course presents topics that form the foundation for clinical practice as a medical assistant in an ambulatory healthcare setting. The course focuses on fundamental skills such as patient assessment, patient education, and health promotion. Students will also learn to assist a provider with a patient exam. The course encourages students to demonstrate critical thinking, and to incorporate knowledge gained into the performance of course competencies. This course is the first course of a two-semester sequence.
Corequisite(s): MAP-542, MAP-115, MAP-221, MAP-435, HSC-113

MAP-325
5.50
Examination Room Techniques II
This course expands on information presented in MAP-322 Examination Room Techniques I, exploring more complex skills required for clinical practice as a medical assistant in an ambulatory healthcare setting. Emphasis is placed on medication administration, principles of electrocardiography, emergent care, and sterile procedures. The course encourages students to demonstrate critical thinking, and to incorporate knowledge gained into the performance of course competencies. This course is the second course of a two-semester sequence.
Corequisite(s): MAP-555, MAP-226, MAP-120
Prerequisite(s): MAP-542, MAP-322, MAP-221, MAP-115, MAP-435, HSC-113

MAP-435
2.00
Interpersonal Relations in Health Care
This course presents concepts of effective communication necessary for medical assistants interacting with patients and colleagues in an ambulatory healthcare setting. The course encourages students to demonstrate critical thinking, and to incorporate knowledge gained into the performance of course competencies.
Corequisite(s): MAP-542, MAP-322, MAP-221, MAP-115, HSC-113

MAP-542
3.00
Human Body in Health & Disease I
This course introduces anatomy and physiology relevant to the clinical practice of medical assistants. The course explores the structural organization of the human body, including body systems and terminology used to describe body structure. An overview of disease concepts, diagnostic imaging, and principles of pharmacology is included. The course encourages the student to demonstrate critical thinking based on knowledge of academic subject matter required for competence in the medical assisting profession. This course is the first course of a two-semester sequence. Individual body systems are studied in MAP-555 Human Body in Health and Disease II.
Corequisite(s): MAP-322, MAP-221, MAP-435, MAP-115, HSC-113

MAP-555
5.00
Human Body in Health & Disease II
This course explores anatomy and physiology relevant to the clinical practice of medical assistants. The course identifies the normal functions and major organs of each body system. Common pathology related to each system is identified, including etiology, signs and symptoms, diagnostic measures, and treatment modalities. The medical assistant's role in assisting with exams, assessments, and procedures is identified relevant to each body system. The course encourages the student to demonstrate critical thinking based on knowledge of academic subject matter required for competence in the medical assisting profession. This course is the second course of a two-semester sequence.
Corequisite(s): MAP-325, MAP-226, MAP-120
Prerequisite(s): MAP-542, MAP-322, MAP-221, MAP-115, MAP-435, HSC-113

MAP-610
3.50
Practicum
This course provides medical assistant students with a 30 day supervised practicum in an ambulatory healthcare setting, performing the psychomotor and affective competencies relevant to the profession. A minimum of 210 hours is obtained. On-site supervision is provided by an individual who has knowledge of the medical assistant profession. The course encourages the student to demonstrate critical thinking based on knowledge of academic subject matter required for competence in the medical assisting profession. Students will learn to incorporate the cognitive knowledge in performance of the psychomotor and affective domains in their practice as medical assistants in providing patient care.
Prerequisite(s): MAP-542, MAP-322, MAP-221, MAP-115, MAP-435, MAP-555, MAP-226, MAP-325, MAP-120, HSC-113
Co-requisite: ENG-105

MATHEMATICS

MAT-023
3.00
Mastery of Math I
The first unit of this course includes the study of basic operations on whole numbers, fractions, and decimals. The second unit includes the study of operations on whole numbers, fractions, and decimals and calculating perimeter and area of quadrilaterals and triangles. The third unit includes the study of basic operations on integers, the properties of arithmetic, slope of a line, and simple word problems. This course does not meet graduation requirements for certificate, diploma, general studies, or associate degree programs.
Pre-requisites and/or Co-requisites: ALEKS score from 0 to 4.

MAT-026
3.00
Mastery of Math II
The first unit of this course includes the study of operations on whole numbers, fractions, and decimals and calculating perimeter and area of quadrilaterals and triangles. The second unit includes the study of basic operations on integers, the properties of arithmetic, slope of a line, and simple word problems. The third unit includes the study of exponents; simplifying and solving algebraic expressions and equations; calculating perimeter, area, and volume of geometric figures; and graphing linear equations. This course does not meet graduation requirements for certificate, diploma, general studies, or associate degree programs.
Pre-requisites and/or Co-requisites: ALEKS score from 5 to 9. OR "C" grade in MAT-023

MAT-027
3.00
Mastery of Math III
The first unit of this course includes the study of basic operations on integers, the properties of arithmetic, slope of a line, and simple word problems. The second unit includes the study of exponents; simplifying and solving algebraic expressions and equations; calculating perimeter, area, and volume of geometric figures; and graphing linear equations. The third unit includes the study of exponents, scientific notation, triangles, and their angles, and solving and graphing linear equations, inequalities, and systems. This course does not meet graduation requirements for certificate, diploma, general studies, or associate degree programs.
Pre-requisites and/or Co-requisites: ALEKS score from 10 to 14. OR "C" grade in MAT-026 OR "B" grade in MAT-023

MAT-028
3.00
Mastery of Math IV
The first unit of this course includes the study of exponents; simplifying and solving algebraic expressions and equations; calculating perimeter, area, and volume of geometric figures; and graphing linear equations. The second unit includes the study of exponents, scientific notation, triangles, and their angles, and solving and graphing linear equations, inequalities, and systems. The third unit includes the study of the properties of exponents, calculating the volume and surface area of geometric figures, and the applications of linear equations and systems. This course does not meet graduation requirements for certificate, diploma, general studies, or associate degree programs.
Pre-requisites and/or Co-requisites: ALEKS placement score from 15 to 19 OR "C" grade in MAT-027 OR "B" grade in MAT-026 OR "A" grade in MAT-023.
Recommended Prerequisite(s) or Corequisite(s): MAT-027 with "C" grade or better or an ALEKS score from 15 to 19.

MAT-029
2.00
Mastery of Math V
The first unit of this course includes the study of exponents, scientific notation, triangles, and their angles, and solving and graphing linear equations, inequalities, and systems. The second unit includes the study of the properties of exponents, calculating the volume and surface area of geometric figures, and the applications of linear equations and systems. This course does not meet graduation requirements for certificate, diploma, general studies, or associate degree programs.
Pre-requisites and/or Co-requisites: ALEKS placement score from 20 to 24. OR "C" grade in MAT-028 OR "B" grade in MAT-027 OR "A" grade in MAT-026

MAT-035
1.00
Mastery of Math VI
The course includes the study of the properties of exponents, calculating the volume and surface area of geometric figures, and the applications of linear equations and systems. This course does not meet graduation requirements for certificate, diploma, general studies, or associate degree programs.
Pre-requisites and/or Co-requisites: ALEKS placement score from 25 to 29 OR "C" grade in MAT-029 OR "B" grade in MAT-028 OR "A" grade in MAT-027

MAT-036
3.00
Pre-Technical Math
This course has been designed to give students an introduction to Technical Mathematics, including competencies in the areas of whole numbers, decimals, fractions, and mixed numbers, ratios, percentages, measurements, algebra, and solving equations.

MAT-045
4.00
Fundamentals of Math
This course is a developmental mathematics course designed to increase ability in basic mathematics. The course includes the study of arithmetic operations on whole numbers, decimals, fractions, mixed numbers, percent's, ratios, proportions, simple algebraic and geometric concepts. This course does not meet graduation credit requirements for certificate, diploma, general studies, or associate degree programs.

MAT-063
4.00
Elementary Algebra
This is a first course in algebra which covers the beginning concepts of algebra through the properties of exponents. This course does not meet graduation credit requirements for certificate, diploma, general studies, or associate degree programs.
Prerequisite(s): TAKE MAT-045 with "C" grade or better or the necessary score on the mandatory assessment and placement chart found in the course catalog.

MAT-102
4.00
Intermediate Algebra
This is a second course in algebra which is a continuation of the study of the concepts developed in Elementary Algebra and proceeds through quadratic functions.
Prerequisite(s): MAT-063 with a "C" grade or better or the necessary score on the mandatory assessment and placement chart found in the course catalog.

MAT-111
4.00
Math for Liberal Arts
This course is designed to introduce a student in non-math related majors to some of the basic uses of mathematics in society today including uses of algorithms for problem solving. Topics covered include principles of counting, sets, probability and statistics, geometry, logic, math of finance, and voting and apportionment. This course satisfies a general education requirement in the Math/Science area.
Prerequisite(s): MAT-063 with "C" grade or better or the necessary score on the mandatory assessment and placement chart found in the course catalog.

MAT-117
3.00
Math for Elementary Teachers
This course covers topics from arithmetic and geometry that are needed by prospective elementary school teachers. Topics included in the course are critical thinking and problem solving, operations on whole numbers, numeration systems, elementary number theory, operations on rational numbers,decimal fractions and an introduction to geometric concepts.
Prerequisite(s): MAT-063 with "C" grade or better or the necessary score on the mandatory assessment and placement chart found in the course catalog.

MAT-120
3.00
College Algebra
College Algebra is a study of functions, their inverses and composites, topics of analytic geometry and other topics important to the study of calculus. This course satisfies a general education requirement in the Math/Science area.
Prerequisite(s): MAT-102 with "C" grade or better or the necessary score on the mandatory assessment and placement chart found in the course catalog.

MAT-127
5.00
College Algebra and Trigonometry
This course is designed to prepare those students who are planning on taking all or part of the calculus sequence. Topics covered include algebraic, logarithmic, and exponential functions,inverse functions, sequences and series, conic sections, and the fundamentals of trigonometry. This course satisfies a general education requirement in the Math/Science area.
Prerequisite(s): MAT-102 with "C" grade or better or the necessary score on the mandatory assessment and placement chart found in the course catalog.

MAT-130
3.00
Trigonometry
This course contains an orderly development of the trigonometric functions and their inverses. Topics included in the course are identities, trigonometric equations, graphs, and solutions of triangles. This course satisfies a general education requirement in the Math/Science area.
Prerequisite(s): MAT-102 with "C" grade or better or the necessary score on the mandatory assessment and placement chart found in the course catalog.

MAT-140
3.00
Finite Math
This course is a study of the topics of finite mathematics which have applications in nonphysical science areas such as business, economics,psychology, social science and natural science.Topics included are systems of linear equations and inequalities, linear programming, probability and decision theory. This course satisfies a general education requirement in the Math/Science area.
Prerequisite(s): MAT-063 with "C" grade or better or the necessary score on the mandatory assessment and placement chart found in the course cataglog.

MAT-156
3.00
Statistics
This is the first course in basic probability and statistics which includes the study of frequency distributions, measurers of central tendency and dispersion, elements of statistical inference, regression and correlation. This course satisfies a general education requirement in the Math/Science area.
Prerequisite(s): MAT-063 with "C" grade or better or the necessary score on the mandatory assessment and placement chart found in the course catalog.

MAT-157
4.00
Statistics
This is a course in basic probability and statistics which includes the study of frequency distributions, measures of central tendency and dispersion, elements of statistical inference, regression and correlation. This course satisfies a general education requirement in the Math/Science area.
Prerequisite(s): MAT-063 with "C" grade or better or the necessary score on the mandatory assessment and placement chart found in the course catalog.

MAT-158
3.00
Statistics II
This is the second course in the statistics sequence. It includes the study of additional topics in probability, correlation, regression and statistical inference. The course also includes the topics of chi-square procedures, analysis of variance, non-parametric methods and statistical quality control. This course satisfies a general education requirement in the Math/Science area.
Prerequisite(s): MAT-156 Statistics or MAT-157 Statistics or equivalent.

MAT-165
3.00
Business Calculus
This course is a study of the concepts and skills of calculus which have important applications in business, economics, psychology, social science and natural science. Topics included are functions, limits, differentiation and its applications, and integration and its applications.
Prerequisite(s): MAT-102 with "C" grade or better or the necessary score on the mandatory assessment and placement chart found in the course catalog.

MAT-180
2.00
Engineering Problems
This course incorporates the use of log scales, electronic calculators and digital computers with emphasis on stored and library programs. It is appropriate for students entering science, mathematics or engineering fields.
Prerequisite(s): MAT-127 or equivalent with "C" grade or better, concurrent enrollment in MAT-127, or obtain a letter of recommendation from the MAT-127 or equivalent course instructor indicating that the student may be advanced.

MAT-210
4.00
Calculus I
This is a first course in integrated calculus and analytic geometry. The concepts of analytic geometry are studied as they apply to calculus. The calculus concepts covered include the rate of change of a function, limits, derivatives of algebraic, logarithmic, trigonometric and inverse trigonometric functions, applications of the derivative and an introduction to integration.
Prerequisite(s): MAT-127 or equivalent with "C" grade or the necessary score on the mandatory assessment and placement chart found in the course catalog.

MAT-216
4.00
Calculus II
This is the second course of the calculus sequence. It includes the study of techniques and applications of integration, infinite series, polar equations and graphs, and vectors in two and three dimensions and vector-valued functions.
Prerequisite(s): MAT-210 or equivalent with "C" grade or better.

MAT-219
4.00
Calculus III
This is the third course of the calculus sequence. It contains the study of vector-valued functions,functions of several variables, multiple integration and vector analysis.
Prerequisite(s): MAT-216 or equivalent with "C" grade or better.

MAT-226
3.00
Differential Equations With Laplace
This course is the study of the elementary theory,solutions, and applications of ordinary differential equations.
Prerequisite(s): MAT-216 or equivalent with "C" grade or better or obtain a letter of recommendation from the instructor indicating that the student may be advanced.

MAT-743
3.00
Technical Math
This is an applied mathematics course, which will teach or reinforce basic mathematical skills. Fundamental mathematical concepts will be applied to the real life problems of today's world.

MAT-748
3.00
Technical Math II
Students will have instruction and practice in algebraic, geometric, and trigonometric operations essential for technical careers.

MAT-749
4.00
Technical Math III
The student will learn and apply concepts related to technical math as required in fields of design. Topics will include solutions of functions, differential and integral calculus, and their application in industrial settings.

MAT-948
1.00
Special Projects
This course is for students with sufficient preparation in the particular interest area selected. It involves selection of an individual topic, conferences with the supervisor, and preparation of a final report. It is designed to meet the needs of a student wishing to study a selected topic in depth. Permission of the staff member with whom the student wishes to work and the department head is required.

MAT-949
1.00
Special Topics
This course, offered usually on a one-time basis only, provides an in-depth study on a topic of general interest pertaining to mathematics.

MANUFACTURING

MFG-238
2.00
Machine Processes I
This course will provide hands on activities using the drill press, surface grinders, band saws, files, hacksaws and other tools and equipment used in the machine shop.

MFG-256
2.00
Introduction to Lathe Operations
This course will introduce the student to the function and application of the engine lathe. Students will learn to use the engine lathe in turning, drilling, reaming, and thread cutting applications.

MFG-257
2.00
Advanced Lathe
This course covers advanced lathe operations. Students will learn to use the engine lathe in turning, drilling, reaming, boring, internal thread cutting applications, knurling and taper turning.

MFG-266
2.00
Introduction to Mill Operations
This course will introduce the student to the safe use and operation of the vertical milling machine. Students will learn machine set up, machining of square parts, parallel machining and milling of holes.

MFG-305
2.00
Computerized Numerical Control Operation
This course will introduce the student to the fundamentals of computerized numerical control (CNC). Students will learn CNC programming, safety, tooling, set ups, and machine operations.

MFG-312
2.00
Advanced Computerized Numerical Control
Students will learn advanced computerized numerical control programming using a computerized numerical controlled mill. The student will learn to use curve programming, subroutines, canned cycles, CNC threading, and tool difference compensation.

MFG-320
3.00
Computer Assisted MacHining
This course will introduce the student to the process of computer aided machining (CAM). Students will use post-processors to convert computer drawings into machine tool operations.

MFG-326
3.00
Computer Aided Machining II
A continuation of Computer Aided Machining 1. Includes instruction in writing and editing CNC programs, machine setup and operation, and use of Computer Aided Machining (CAM) equipment and software to program and operate CNC machines.

MFG-400
3.00
Introduction to Die Making
This course will introduce the student to fundamentals and design of tool and die, with an orientation of metallurgy related to the fabrication of die components.

MFG-422
3.00
Jig and Fixtures Design
Students will learn specialized skills associated with the design and fabrication of work holding devices including jigs, fixtures, and other tools.

MFG-453
2.00
Introduction to Mold Making
This course will introduce the student to the design and operation of molds for thermoplastics. Topic areas will include cavities, cores, ejectors, pullers and shrinkage application.

MFG-505
1.00
Lean Manufacturing
This course will give students the basic concepts of a lean system. Students will learn the emphasis of waste prevention. The lean system's unique tools, techniques, and methods will be applied by students as it would happen in an industrial environment.

MFG-506
1.00
Quality Assurance
This course is designed to gain knowledge about quality control and applications of quality tools used in industry. The student will learn applications or statistical process control and its applications. Also covered Dr. Edward Deming and his 14 points

MFG-932
4.00
Internship
The student will be able to apply classroom knowledge in a real world industrial environment.

MFG-949
1.00
Spec Top: Fabrication Processes
This course, usually offered on a limited basis only, provides an in-depth study on a topic of general interest pertaining to this department.

MANAGEMENT

MGT-101
3.00
Principles of Management
This course provides students with an engaging and informative introduction to the functions of business management: Planning, Organizing, Leading and Controlling. Key perspectives range from management theories, human perspectives of management, authority and responsibility, competitive perspectives of management, entrepreneurship, and international perspectives of management. The course enables students to become aware of the complexity of issues that shape contemporary business and management practices and to consider future directions.

MGT-260
3.00
Introduction to Business Logistics
The course introduces students to the overall history of supply chain management and the value-added role supply chain management plays in today's business sectors, service industries, and world economies. The course distinguishes the various supply chain management functional areas, supply chain management applications, and supply chain management networks with their impact on market applications, profit, return-on-assets, market differentiation, efficiency and effectiveness in the business environment.

MGT-261
3.00
Principles of Transportation Management
Course introduces students to the overall transportation industry including history and operational characteristics of the five primary modes of transportation comprising today's transportation sector, regulations, policies, documentation, transportation strategies and transportation pricing. The course will discuss FMCSA, FMCSR, CSA, Performance Measures and Planning, Equipment overview, and terminal management from a motor carrier perspective. Course allows students to understand the key role transportation plays in domestic & world economies and establishing supply chain efficiency and effectiveness.

MGT-262
3.00
Principles of Purchasing and Logistics
The course introduces students to the purchasing and supply chain management including the evolution of purchasing and role in supply chain management; the purchasing process and procedure; sourcing strategies and negotiation concepts; inventory management; commodity procurement and study; contract management; and ethical responsibility in the purchasing sector.

MGT-263
3.00
Principles Distribution/Warehouse Mgt
The course discusses Distribution and Warehouse Management processes and procedures while improving efficiency, effectiveness, and minimize costs in the modern warehouse. The role of the warehouse and warehouse manager, warehouse processes, warehouse management systems, warehouse layout, design, and mathematical calculations in today's warehouse, warehouse wms applications and equipment, performance measures, health/safety, and the future role of warehouses in supply chain management.

MGT-264
3.00
Demand Planning and Inventory Management
The course introduces a student to the key aspects of demand planning and inventory management including such Supply Chain Management/ Performance, Distribution Networks, Forecasting, Inventory Management, Material Requirement Planning, Distribution Resource Planning, Aggregate Planning, and the application of Information Technology to demand planning.

MGT-265
3.00
International Transport and Logistics
Discuss the organized movement of goods and services across national borders and "World" countries. The course discusses differences in cultural and business standards, global infrastructure and transportation systems, and government roles in international transportation, various modes of transportation, international documentation, terminology, and the role of logistics in the international supply chain.

MGT-270
3.00
Operations Production Management
Introductory Operations Production Management course, the science and art of ensuring goods and services are created and delivered to the customer at the most efficient and effective cost, incorporating valued added activities, total-cost analysis, customer service, quality, profitability and multiple other factors into practices and procedures. Course provides the understanding of people, processes, technology and creation of value into today's supply chain's goods and services.

MGT-280
3.00
Capstone
This course will give students the opportunity to apply the knowledge that they have gained in their program in a comprehensive way to business logistics and transportation management case studies. This course is recommended to be the last course taken. At least five courses with the MGT prefix are required prior to enrolling in the capstone course.

MARKETING

MKT-110
3.00
Principles of Marketing
This course helps students understand marketing, the process through which organizations analyze, plan, implement, and control programs to develop and maintain beneficial exchanges with target buyers. Effective marketing is critical for the long-term success of any business organization because this function ensures that the firm attracts, retains, and grows customers by creating, delivering, and communicating superior customer value.

MKT-131
3.00
Social Media Marketing
Social media has become a central component of business. Collaborative, social technology is now an essential part of many organizations including marketing, HR, legal, product management and the supply chain. In this course, we examine the organizational use of social media technologies such as photo and website editing, blogs, web analytics, and social networks, as well as the use of social media analytics to drive business strategy.

MKT-136
3.00
Intro to Selling
Selling is a fundamental part of business and everyday life. We are called upon to sell all the time, whether it is an idea, product, service, or point of view. This course is designed to teach you about selling and how to sell effectively. While the focus will be on selling in a business environment, the concepts discussed in class will be of great relevance to your ability to function effectively in the general work environment.

MKT-145
3.00
Sales Management
This course is designed to teach you and examine sales perspective, sales environment, sales technique, sales management, and sales control will all be examine in this course. While the focus will be on strategic selling and partnering, ethical issues in selling, management of sales channels, social media selling, and lead generation.

MKT-153
3.00
Advertising and Promotion
This course provides the student with an understanding of the advertising strategy principles and training for entry-level job positions in the fields of advertising and sales promotion. Advertising learning experience must keep up with changes in the field being exposed to new media and new ways of advertising, this course takes the new ways and applies them to fundamentals such as advertising and sales promotion appeals, selection of media, use of advertising and sales promotion as a marketing tool, and means of testing effectiveness.

MEDICAL LAB TECH

MLT-111
4.00
Fundamentals of Lab Science
This course is designed to acquaint the student with the field of laboratory science. The organization and role of the clinical laboratory are explored. Basic concepts in clinical laboratory testing and math are presented. Medical ethics, employment opportunities and professional organizations are included.
Prerequisite(s) or Corequisite(s): BIO-168, HSC-113

MLT-120
3.00
Urinalysis
This course is the study of the properties and constituents of urine and other body fluids. Emphasis is placed on theory and methodology of qualitative and quantitative analysis of urine. Constituent values are related to the physiology of the urinary system in health and disease.
Prerequisite(s) or Corequisite(s): MLT-111

MLT-133
3.00
Erythrocyte Hematology
An introduction to clinical hematology and fundamentals of hemostasis is presented. This course focuses on red cell metabolism, hematopoiesis, evaluation of red cell morphology, and the pathogenesis of anemia.
Prerequisite: MLT-111
Pre- or Co-requisite: BIO-173

MLT-171
3.00
Immunology & Serology
The basic concepts of immunology and its application to in human disease are studied. The principles of routine techniques for serological testing and the use of lab tests for diagnosis are presented.
Prerequisite(s) or Corequisite(s): BIO-173
Prerequisite(s) or Corequisite(s): MLT-111

MLT-234
4.00
Leukocyte Hematology/Coagulation
This course presents the disease processes leading to abnormal white and red cell morphology, and white blood cell disorders, including both benign and malignant states. An overview of hemostasis,thrombosis and anticoagulant therapy, including procedures routinely performed in the clinical hematology and hemostasis laboratory.
Prerequisite(s) or Corequisite(s): MLT-111

MLT-241
4.50
Clinical Chemistry I
Analytical techniques are studied for precise measurement of chemical constituents of the blood and body fluids including electrolytes, protein, lipids, and enzymes. Clinical correlation of test results with states of health and disease will also be covered.
Prerequisite(s): CHM-110, CHM-111, MLT-111, BIO-173

MLT-243
2.00
Clinical Chemistry II
The course includes the study of the endocrine system, tumor markers, therapeutic drugs, toxicology and vitamins, correlating test results with state of health and disease.
Prerequisite(s): CHM-110, CHM-111, MLT-241

MLT-250
4.00
Clinical Microbiology
Microorganisms with emphasis on bacteria causing disease in man is studied. Theory and principles of identification, biochemical reactions, growth requirements and susceptibility testing will be discussed. This course also includes new technologies in the laboratory diagnosis of infectious disease.
Prerequisite(s): BIO-186, MLT-111

MLT-253
2.00
Parasitology & Mycology
Common human parasites, their morphology, life cycles, symptomology and techniques of identification are covered. Competencies in mycology include studying the changing etiologic role of fungi, proper specimen collection, processing and culture methods.
Prerequisite(s): BIO-186, MLT-250

MLT-260
4.00
Immunohematology
Blood transfusion science is presented including the inheritance of blood groups, donor procedures, quality control, antibody testing and cross-matching of blood. Transfusion safety and Federal regulations are also included.
Prerequisite(s): BIO-173, MLT-171

MLT-280
8.00
Clinical Practicum I
Students rotate through the laboratory departments of hematology, chemistry, microbiology, blood bank, and urinalysis. Application of the knowledge and skills learned in the classroom are applied in the clinical practicum.
Prerequisite(s): MLT-250, MLT-120, MLT-133, MLT-171, MLT-234, MLT-241, MLT-260, ENG-105, PSY-111 BIO-168, BIO-173, BIO-186
Recommended Corequisite(s): MLT-253, MLT-243

MLT-281
4.50
Clinical Practicum II
This course is a continuation of Clinical Practicum 1. Additional rotations may take place in clinics and other industries.
Corequisite(s): MLT-290
Prerequisite(s): MLT-243, MLT-253, MLT-280

MLT-290
2.00
Clinical Seminar & Review
Students share their experience in the clinical area through discussion of topics of interest. Case studies are presented. Medical laboratory subjects are reviewed in preparation for registry examination.
Corequisite(s): MLT-281
Prerequisite(s): MLT-280

MASS MEDIA STUDIES

MMS-101
3.00
Mass Media
This is an introductory course on the role and functions of mass media. It includes a survey of newspapers, magazines, books, radio/television, cable TV, public relations, advertising and government regulations. Professional opportunities will be explored.

MMS-105
3.00
Audio Production
This course is designed to provide the student with the knowledge necessary to operate radio broadcasting equipment. Emphasis is placed on the fundamentals of planning and producing radio programs, commercials and promotions using "on air" and production studio equipment.

MMS-106
1.00
Audio Production Lab
This course is designed to give students proficiency in using radio broadcasting equipment. Emphasis is on the production of radio programs, commercials and promotions using "on air" and production studio equipment.

MMS-111
3.00
Video Production I
This course provides the student with information needed for single-camera and video control room production. Students will learn the creative process of turning an idea into content, the language of audio and video, and the techniques of directing and editing.

MMS-112
1.00
Video Production I Lab
This course provides the student with skills needed for single-camera and video control room production. Students will apply the creative process of turning an idea into content, the language of audio and video, and the techniques of directing and editing.

MMS-115
3.00
TV Studio Production
This course is designed for students to gain expertise in advanced video production. Emphasis is on the production of video programs, commercials, and promotions.

MMS-116
1.00
TV Production Lab
This course is designed for students to gain expertise in advanced video production. Emphasis is on the production of video programs, commercials, and promotions.

MMS-118
3.00
Announcing
This course will focus on presentation techniques and methodology for on-air performance in radio. Emphasis is on voice and articulation, acting, persuasion, pronunciation, and the role of format in adapting an announcing style. Techniques for improving breathing, relaxation, and vocal dynamics will also be explored.

MMS-119
1.00
Announcing Lab
Students in this course will practice vocal relaxation and breathing techniques through performance-based activities. Emphasis is on improving voice and articulation, pronunciation, and presentation for broadcast news, sports, weather, commercials, and on-air announcing.

MMS-120
3.00
Media Practices 1
Media Practices 1 is an introductory course that takes a look at the inner workings of the broadcast industry. It is also a hands on course the gives students a chance to work on audio and video projects, such as an air shift on the student run campus radio station KICB and live sports and news broadcasts on the Iowa Central YouTube channel.

MMS-121
3.00
Media Practices II
Media Practices 2 deals with the management and operations of broadcast stations and the duties of those who work in the industry. It is also a hands on course the gives students a chance to work on audio and video projects, such as an air shift on the student run campus radio station KICB and live sports and news broadcasts on our YouTube channel. It will also provide a training ground for student managers of the radio and TV stations.
Prerequisite(s): MMS-120

MMS-131
3.00
News Reporting
Basic aspects of news writing are covered in this course. Topics include covering crime, disasters (accidents and/or/ natural disasters), campus news, human interest features, professional speeches and/or press conferences, and public meetings. Students also study laws and ethics as they apply to journalism.

MMS-145
3.00
Broadcast Writing
This course is designed for students to gain the knowledge, fundamentals, principles and challenges of writing for TV and radio. Emphasis is on the duties of the account executives, copy writers, news directors, sports directors, and promotions directors, as they relate to programming, broadcast sales, profit, broadcast engineering and federal regulations. This is a writing intensive course.

MMS-149
3.00
Sports Reporting
Students learn the structure, strategies, and techniques of sports broadcasting, which serves the dual role as journalism and entertainment. The course considers different content and styles of radio and television sports casting. Sports Reporting will prepare students to tell a great sports story through analysis, thoughtful research, careful writing, strong audio and visual elements, and performance. In addition, students will learn to work as both a leader and member of a production team in a studio and remote environment.

MMS-154
3.00
Tv and Radio Announcing
Students learn to communicate effectively by using their voice and body language as a means of communicating the message. Skills in voice and articulation, acting, persuasion, and pronunciation are studied along with techniques of relaxation and vocal dynamics. Many exercises are also taught to help prepare speech and vocal skills essential to broadcasting.

MMS-171
2.00
Audio Production
This course is designed to provide the student with the knowledge necessary to operate broadcast audio equipment and to understand the properties of sound and its impact on broadcasting. Emphasis is placed on the fundamentals of planning and producing commercials and promotions using "on air", on location, and production studio equipment.

MMS-172
2.00
Video Production
In this course the student will learn the basic fundamentals of creating video for broadcast or the internet with hands on use of broadcast video equipment for sports, news, and entertainment. It will explore practical uses as well as theory for the digital platform.

MMS-173
2.00
Advanced Audio Productions
This course takes students beyond the fundamentals of planning and producing for radio and video. Students will produce Live and prerecorded projects using equipment and techniques learned in this course. Emphasis is on creative strategy, mixing multiple audio sources, and using digital audio editing software to perform more advanced audio and audio for video production.
Prerequisite(s): MMS-171

MMS-174
2.00
Advanced Video Production
In this course the student will learn the more advanced theories and practical uses of video. The student will learn the proper use of graphics, advanced editing techniques, lighting and camera work. An emphasis will be placed putting together, from shooting to editing, a variety of live and prerecorded projects. The student will also gather more knowledge on the equipment used in a commercial setting.
Prerequisite(s): MMS-172

MMS-190
3.00
Broadcast Promotions
In this course, students will explore the marketing strategies program directors and general managers use to draw listeners to their stations. Topics to be discussed include target audience, research, format, image, promotions, and contest strategies.

MMS-191
4.00
Tv and Radio Production 1
TV and Radio Production 1 offers a specialization in technical and non-technical skills for radio and or television. Students will work in communal environments and share ideas to facilitate a creative environment. Students will work on air at the college radio station and or the TV station or You Tube channel. They will gain analytical, technical, and practical skills through academic course work and hands-on studio application. The goal of the course is to give student the hands on experience needed to impact the broadcast industry directly after graduation. Students in the class will produce thirty second to 30 minute projects, taking each project from pre-production, to post-production and editing. They will also have the opportunity to work on longer videos and ALL students will be involved in an "Awareness Project" or any other grant projects that come up during the semester.

MMS-192
4.00
Tv and Radio Production 2
a. TV and Radio Production 2 offers a specialization in technical and non-technical skills for radio and or television. Students will work in communal environments and share ideas to facilitate a creative environment. Students will work on air at the college radio station and or the TV station or You Tube channel. They will gain analytical, technical, and practical skills through academic course work and hands-on studio application. The goal of the course is to give student the hands on experience needed to impact the professional broadcast industry directly after graduation. Students in the class will produce thirty second to 60 minute projects, taking each project from pre-production, to post-production and editing. They will also have the opportunity to work on longer videos and ALL students will be involved in an "Awareness Project" or any other grant projects that come up during the semester.
Prerequisite(s): MMS-191

MMS-201
3.00
Media Practices III
Media Practices 3 is a course that allows students to apply the skills learned in the management and operations of a broadcast facility. Media Practices 3 also applies an emphasis on the importance of public relations in media. It is a hands on course that allows students a chance to manage and operate the student run the campus radio station, live sports events, and news broadcasts on KICB's YouTube channel.
Prerequisite(s): MMS-121

MMS-203
3.00
Media Practices IV
This course is designed to help students make the transition from college to professional TV or radio. Students will continue to perform weekly air shifts including operations and programming duties for KICB-FM or for KICB TV. Emphasis is on finding an internship, preparing resumes, assembling a portfolio, air check tapes, interviewing techniques, and job search strategies.
Prerequisite(s): MMS-201

MMS-211
3.00
Advanced Video Editing
This course is designed to give students an understanding of the basic principles of videotape editing including the equipment used, major editing systems, and the process involved in post-production.

MMS-212
1.00
Advanced Video Editing Lab
This course is designed to give students an understanding of the basic principles of videotape editing including the equipment used, major editing systems, and the process involved in post-production.

MMS-241
3.00
Public Relations and Marketing
The course will provide a comprehensive understanding of public relations' role in organizations and society; how public relations has been developed as a discipline; and the contemporary roles of public relations in organizations and society. Basic public relations principles and theories will be examined in addition to applied perspectives. Students will discuss public relations issues and trends as well as international and ethical considerations involved in the practice of public relations. Students will be encouraged to think more broadly considering the globalized communication function of public relations and having their own ideas about public relations through the discussion of misunderstandings and misperceptions about the field of public relations as well as ongoing discussions about case studies.

MMS-259
3.00
Management and Operations
In this course, students will explore the marketing strategies program directors and general managers use to draw listeners to their stations. Topics to be discussed include target audience, research, format, image, promotions, and contest strategies.

MMS-262
3.00
Advertising and Sales
Students will learn the fundamentals of broadcast writing and editing. Students will demonstrate practical application of writing and production skills in preparing and presenting broadcast scripts to air on KICB-FM. This is a writing-intensive course.

MMS-265
3.00
Mass Communications Law
Students will receive an in-depth study of legal rights, privileges and regulations of the broadcast industry. Course includes an overview of the Federal Communications Commission, Supreme Court and self-regulatory agencies.

MMS-938
4.00
On the Job Training
Students will participate in a 240 hour professional internship at a professional broadcast station, digital media outlet, or sports organization. The internship will provide students with job seeking and interview skills, as well as exposure to professional promotions, production, on-air announcing, sports, news, sales, and other areas of interest in the broadcast media industry.
Prerequisite(s): MMS-203

MEDICAL TRANSCRIPTION

MTR-120
3.00
Medical Transcription I
This course covers skill development in medical transcription that includes authentic physician dictation by medical specialty, coordinated readings and exercises by medical specialty and supplementary information vital to every medical transcription profession. Students must complete a 5-minute timed writing at a minimum speed of 45 wpm with 5 or fewer errors without the use of the backspace key before enrolling into course.

MTR-941
2.00
Practicum
This course provides an opportunity to gain practical experience through on-site training in an approved medical office setting. The actual training on the job site will be under the supervision of a designated person within the employer. A total of 2 credit hours must be earned to fulfill the Practicum requirement. A letter grade of "C" or higher must be earned in this course to satisfy the program graduation requirements.

MUSIC - APPLIED

MUA-101
1.00
Applied Voice
This course offers one half-hour lesson of private instruction per week, with a minimum of 30 minutes of practice per day. The goal is the development of both fundamental and advanced vocal techniques. The presentation of the standard repertoire for the specific voice is required. Music majors may earn a maximum credit of 8 semester hours.

MUA-102
1.00
Applied Voice II
This course is a continuation of MUA 101 and offers one half-hour lesson of private instruction per week, with a minimum of 30 minutes of practice required per day. The goal is the development of both fundamental and advanced vocal techniques. The presentation of the standard repertoire for voice is required along with participation in two studio recitals throughout the semester. Music majors may earn a maximum credit of 8 semester hours.

MUA-119
1.00
Class Piano
This course is an introduction to music theory and the fundamental principles of traditional music, including melody, rhythm, harmony basic skills and vocabulary. Emphasis is on music reading, application, notation, key/time signatures and aural training. This course is for majors and non-majors with limited background in music fundamentals or as preparation for music major theory courses.

MUA-120
1.00
Applied Piano
This course offers one half-hour lesson of private instruction on piano per week. The goal is the development of both fundamental and advanced piano techniques. Standard repertoire will be studied. Music majors may earn a maximum credit of 8 semester hours.

MUA-122
1.00
Applied Organ
This course offers one half-hour lesson of private instruction on organ per week, with a minimum of 30 minutes of practice per day. The goal is the development of both fundamental and advanced instrumental techniques. The presentation of the standard repertoire for organ is required. Music majors may earn a maximum credit of 8 semester hours.

MUA-124
1.00
Applied Guitar
This course offers one half-hour lesson of private instruction on guitar per week, with a minimum of 30 minutes of practice per day. The goal is the development of both fundamental and advanced instrumental techniques. Music majors may earn a maximum credit of 8 semester hours. Permission of the instructor.

MUA-126
1.00
Applied Strings
This course offers one half-hour lesson of private instruction on strings per week, with a minimum of 30 minutes of practice required per day. The goal is the development of both fundamental and advanced instrumental techniques. The presentation of the standard repertoire for strings is required. Music majors may earn a maximum credit of 8 semester hours.

MUA-143
1.00
Applied Brass
This course offers one half-hour lesson of private instruction on brass per week. For music majors, a minimum of 45 minutes of practice per day is required and for non-majors a minimum of 30 minutes of practice per day is required. The goal is the development of both fundamental and advanced instrumental techniques. The presentation of the standard repertoire for the specific instrument is required. Music majors may earn a maximum credit of 8 semester hours.

MUA-170
1.00
Applied Woodwinds
This course offers one half-hour lesson (minimum) of private instruction on woodwinds per week, with a minimum of 30 minutes of practice recommended per day. The goal is the development of both fundamental and advanced instrumental techniques. Music majors may earn a maximum credit of 8 semester hours.

MUA-180
1.00
Applied Percussion
This course offers one half-hour lesson of private instruction per week, with a minimum of 30 minutes of practice per day. The goal is the development of both fundamental and advanced instrumental techniques. Music majors may earn a maximum credit of 7.5 semester hours.

MUA-220
1.00
Applied Piano II
This course offers one half-hour lesson of private piano instruction per week, with a minimum of 30 minutes of practice per day. (Piano majors should expect to practice at least one to two hours a day). The goal is the development of both fundamental and advanced piano technique, literacy, ear training, and musicianship. It is open to music majors and non-majors. Music majors may earn a maximum credit of 8 semester hours. Studio seminars and recitals will be offered and participation expected as discussed with instructor.

MUSIC

MUS-102
3.00
Music Fundamentals
This course is an introduction to music theory and the fundamental principles of traditional music, including melody, rhythm, harmony, basic skills and vocabulary. Emphasis is on music reading, application, notation, keytime signatures and aural training. This course is for majors and non-majors with limited background in music fundamentals or as preparation for music major theory courses.

MUS-104
3.00
Exploring Music
This course is designed for all students interested in exploring music. Through listening and class participation, the student will become acquainted with the various elements of music which span a variety of cultures and times. No formal music training/background is necessary to be successful in this course.

MUS-118
2.00
Sight-Singing and Ear Training I
This course introduces a progressive study of aural training and sight-singing designed to familiarize the student with the various skills needed to advance in the study of music. With emphasis placed on critical listening, the course is intended to challenge the student to achieve a maximum mastery of its content which includes, but is not limited to, aural recognition of major/minor scales, modes, triads, seventh chords and their inversions as well as basic conducting skills, melodic and rhythmic dictation and facility of sight singing. This class will meet twice per week, along with 2 hours of arranged lab.
Prerequisite(s) or Corequisite(s): MUS-102 or MUS-120

MUS-119
2.00
Sight-Singing and Ear Training II
This course continues a progressive study of aural training and sight-singing designed to familiarize the student with the various skills needed to advance in the study of music. With emphasis placed on critical listening, the course is intended to challenge the student to achieve a maximum mastery of its content which includes, but is not limited to, aural recognition of major/minor scales, modes, triads, seventh chords and their inversions as well as basic conducting skills, melodic and rhythmic dictation and facility of sight singing. This class will meet twice per week, along with 2 hours of arranged lab.
Prerequisite(s): MUS-118, MUS-120
Prerequisite(s) or Corequisite(s): MUS-121

MUS-120
3.00
Music Theory I
This course introduces elementary harmony designed to familiarize the student with the study of scales, intervals, triads, seventh chords and their inversions. The course includes harmonizing melodies and figured bass lines using primary chords. This class meets three times weekly.
Prerequisite(s) or Corequisite(s): MUS-118

MUS-121
3.00
Music Theory II
This course continues elementary harmony designed to familiarize the student with the study of scales, intervals, triads, seventh chords and their inversions. The course includes harmonizing melodies and figured bass lines using primary chords. This class meets three times weekly.
Prerequisite(s): MUS-118, MUS-120
Prerequisite(s) or Corequisite(s): MUS-119

MUS-140
1.00
Concert Choir
Concert Choir is the highest quality choral offering available, and is open to all students in the fall by audition with supplemental auditions held before the second semester. This course involves the study and performance of quality choral literature with emphasis on choral and vocal techniques. Participation in all rehearsals and public performances is required. Maximum credit of 4 semester hours.

MUS-141
1.00
Concert Choir II
A continuation of MUS-140, Concert Choir II provides an opportunity for any student to further his/her experience as a performer in a large choral ensemble. Emphasis is placed on the development of performance skills and the study of traditional and contemporary music stretching through a wide range of genres. Care will be given to stylistic integrity, as well as melodic, harmonic and rhythmic accuracy. Upon completion of ensemble rehearsals, students should be able to be contributing members of the ensemble's performance in a major spring production along with other college ensembles. Participation in all rehearsals and public performances is required. Maximum credit of four (4) semester hours.

MUS-145
1.00
Concert Band
This course is open by audition to all students. This course involves the study and performance of quality band literature with emphasis on musicianship and interpretation. Participation in all rehearsals and public performances is required. Maximum credit of 4 semester hours.

MUS-146
1.00
Civic Symphony
Participation in the Fort Dodge Symphony Orchestra is possible. Acceptance into the Fort Dodge Symphony is through an individual audition procedure. Regular participation in the Symphony's scheduled rehearsals and concerts is required. Maximum credit of 4 semester hours. A minimum of two rehearsal hours per week.

MUS-149
1.00
Pep Band
This course involves the rehearsal and performance of pep band music. Rehearsals will focus on individual preparation of assigned music, group cohesiveness and interpretation. The rehearsals will culminate in performances at home basketball games during January and February, as well as other college athletic and music functions during the semester. Performance dates will be set in advance and should be noted by the student. The pep band supports Iowa Central Community College events through traditional marching routines and performance of longstanding Iowa Central compositions in addition to contemporary music selections. All members are required to attend weekly rehearsals and performances. Maximum credit of four (4) semester hours.

MUS-157
1.00
Vocal Jazz Ensemble
This course involves the study and performance of vocal literature, with emphasis placed on but not limited to jazz literature. The design of the course and ensemble will be subject to voicing and performance abilities of available personnel. A minimum of two rehearsals per week. Maximum credit of 4 semester hours.

MUS-158
1.00
Civic Chorale
Participation in the Fort Dodge Choral Society is possible. Acceptance into the Fort Dodge Choral Society is through an individual audition procedure. Regular participation in the choral Society's scheduled rehearsals and concerts is required. Maximum credit of four (4) semester hours. A minimum of (2) rehearsal hours per week.

MUS-160
1.00
Harmony Brigade
Acceptance into the Harmony Brigade is through an individual audition procedure. Regular participation in the Harmony Brigade's scheduled rehearsals and concerts is required. Maximum credit of 4 semester hours. A minimum of two rehearsal hours per week.

MUS-164
2.00
Pop Singers
This course is open by audition to all students who are members of Concert Choir. The Pop Singers perform a wide variety of styles and literature with considerable stage movement and choreography. Public performances are given throughout the area. Participation in all rehearsals and public performances is required. Class will meet twice weekly and meet 1 night weekly as well. Maximum credit of eight (8) semester hours.

MUS-167
1.00
Marching Band/Pep Band
This course involves the rehearsal and performance of marching band music and drill routines. Rehearsals will focus on individual preparation of assigned music and drill repertoire, group cohesiveness and interpretation. The rehearsals will culminate in performances at college athletic and music functions during the semester. Performance dates will be set in advance and should be noted by the student. The marching band supports Iowa Central Community College events through traditional marching routines and performance of longstanding Iowa Central compositions in addition to contemporary marching drills and music selections. All members are required to attend weekly rehearsals and performances. Students in drumline must also take MUS-177. Maximum credit of four (4) semester hours.
Recommended Prerequisite(s) or Corequisite(s): MUS-177

MUS-170
1.00
Jazz Band
This course is open by audition to all students who are members of the Concert Band. This is a full jazz ensemble designed to explore the various styles of jazz with emphasis on musicianship and solo performances by means of improvisation. Public performances are given throughout the area. Maximum credit of 4 semester hours.

MUS-171
1.00
Jazz Band II
Continues the study of a full jazz ensemble designed to explore the various styles of jazz with emphasis on musicianship and solo performances by means of improvisation. Students must be members of the Concert Band. Public performances are given throughout the area. Maximum credit of 8 semester hours.

MUS-176
1.00
Brass Ensemble
This course is open by audition to all students. This course involves the study and performance of quality band literature with emphasis on musicianship and interpretation. Participation in all rehearsals and public performances is required. Maximum credit of 4 semester hours.

MUS-177
1.00
Percussion Ensemble
This course involves the study and performance of percussion literature for a variable ensemble (from duos, trios, and quartets to the large ensemble). The percussion ensemble experience is vital to a percussionist's training, as it allows students to experience literature from contemporary marching battery and pit, to jazz and world music. The design of the course and ensemble will be subject to performance abilities of available personnel. This course is required of all percussion majors and drumline members. All members are required to attend weekly rehearsals and performances. Applied music lessons and Pep Band is strongly recommended. Maximum credit of four (4) semester hours.
Recommended Corequisite(s): MUS-177

MUS-210
2.00
Pop Singers II
This course is a continuation of Pop Singers MUS-164 and is open by audition to all students who are members of Concert Choir. The Pop Singers perform a wide variety of styles and literature with considerable stage movement and choreography. Public performances are given throughout the area. Participation in all rehearsals and public performances is required. Class will meet twice weekly and meet 1 night weekly as well. Maximum credit of eight (8) semester hours.

MUS-218
2.00
Sight-Singing and Ear Training III
This course introduces a progressive study of aural training and sight-singing designed to familiarize the student with the various skills needed to advance in the study of music. With emphasis placed on critical listening, the course is intended to challenge the student to achieve a maximum mastery of its content which includes, but is not limited to, aural recognition of major/minor scales, modes, triads, seventh chords and their inversions as well as basic piano knowledge, basic conducting skills, melodic and rhythmic dictation and facility of sight singing. This class will meet twice per week, along with 2 hours of arranged lab.
Prerequisite(s): MUS-118, MUS-119, MUS-120, MUS-121
Prerequisite(s) or Corequisite(s): MUS-220

MUS-219
2.00
Signt-Singing and Ear Training IV
This course continues a progressive study of aural training and sight-singing designed to familiarize the student with the various skills needed to advance in the study of music. With emphasis placed on critical listening, the course is intended to challenge the student to achieve a maximum mastery of its content which includes, but is not limited to, aural recognition of major/minor scales, modes, triads, seventh chords and their inversions as well as basic piano knowledge, basic conducting skills, melodic and rhythmic dictation and facility of sight singing. This class will meet twice per week, along with 2 hours of arranged lab.
Prerequisite(s): MUS-118, MUS-119, MUS-120, MUS-121, MUS-218, MUS-220
Prerequisite(s) or Corequisite(s): MUS-221

MUS-220
3.00
Music Theory III
This a continuation of the traditional music theory sequence. Attention is given to the various seventh chords, chromatic harmony, chromatic modulations, complex rhythms and non-chord tones. This class meets three times weekly.
Prerequisite(s): MUS-118, MUS-119, MUS-120, MUS-121
Prerequisite(s) or Corequisite(s): MUS-218

MUS-221
3.00
Music Theory IV
This a continuation of the traditional music theory sequence. Attention is given to the various seventh chords, chromatic harmony, chromatic modulations, complex rhythms and non-chord tones. This class meets three times weekly.
Prerequisite(s): MUS-118, MUS-119, MUS-120, MUS-121, MUS-218, MUS-220
Prerequisite(s) or Corequisite(s): MUS-219

MUS-227
1.00
Vocal Jazz Ensemble II
This course is a continuation of Vocal Jazz Ensemble MUS-157 and involves the study and performance of vocal literature, with emphasis placed on but not limited to jazz literature. The design of the course and ensemble will be subject to voicing and performance abilities of available personnel. A minimum of two rehearsals per week. Maximum credit of four (4) semester hours.

MUS-245
1.00
Concert Band II
Concert Band II provides an opportunity to develop further proficiency on a chosen instrument. This course is a continuation course and involves the study and performance of quality band literature with emphasis on musicianship and interpretation. Participation in all rehearsals and public performances is required. Maximum credit of 2 semester hours.

MUS-948
1.00
Special Projects
1, 2, 3 or 4 credit hours. Highly motivated students may wish to work intensively on a creative or research project not covered in the course offerings of the department. The student should possess the necessary background for such work, and initiate an application for such study. A maximum of four hours credit may be earned. Permission of the staff member with whom the student wishes to work is required.

MUS-949
1.00
Special Topics: Music
1, 2, 3 or 4 credit hours. This course, offered usually on a one-time only basis provides an in-depth study on a topic of general interest pertaining to this department.

COMPUTER NETWORKING

NET-110
3.00
Microcomputer Fundamentals
Students will learn the fundamentals of Command Line, Windows operating systems, and file management and fundamental productivity software. Class is meant for CNT students.

NET-138
3.00
Introduction to Networks
This course focuses on networking terminology, technologies, components, and how data is moved in the real-world network environment. Beginning with basics of data communication, students will learn about Protocol Data Unit structure of segments, datagrams, packets and frames. Students build upon network architectures, transmission methods, DCE/DTE interfaces, modulation, and multiplexing. Students will also investigate different types of network media and how they function along with hands on experiences with the media.

NET-152
3.00
Advanced Networking Technology
This course will cover the advanced topics of networking topologies, advanced management utilities, plan performance management, configure network communications packets, configure the environment for different network protocols, construct network security, implement and evaluate a maintenance and prevention plan, determine appropriate action for common problems. While in the course and covering the topics the student will also be studying for a series of tests that are required for the Engineers License in networking.
Prerequisite(s): NET-138, NET-413, NET-750

NET-160
3.00
Network Design & Documentation
Students will learn to design and document networks from the ground up using industry standards. Starting with the network in our own lab, the students will learn to design a simple network and create the necessary documentation to manage a small network. The students will then develop skills to design and document a more complicated network, such as the Iowa Central campus network. They will also learn to document established networks. This will be accomplished by inspecting the campus network, using necessary tools and software to analyze the network and prepare the proper documentation.
Prerequisite(s): NET-191, NET-211, NET-222

NET-169
2.00
Network Design and Documentation
Students will learn to design and document networks from the ground up using industry standards. Starting with the network in our own lab, the students will learn to design a simple network and create the necessary documentation to manage a small network. The students will then develop skills to design and document a more complicated network, such as the Iowa Central campus network. They will also learn to document established networks. This will be accomplished by inspecting the campus network, using necessary tools and software to analyze the network and prepare the proper documentation.
Prerequisite(s): NET-191, NET-211, NET-222

NET-222
3.00
CISCO Routers
Routing protocols and routing knowledge is crucial for today's networking professional. This course gives you an opportunity to compare and contrast the performance, overhead, routability, security and integrity issues surrounding today's major LAN/WAN protocols. The student will understand how to install, configure and manage Cisco routers. Students will configure static and dynamic routes, subnet IPv4 and IPv6 networks, addressing schemes and access lists in the classroom network. Students will learn how to configure routers for dynamic routing protocols, Access Control Lists for both IPv4 and IPv6.
Prerequisite(s): NET-138

NET-232
3.00
CISCO Switched
Students will learn routed data communications using TCP/IP based Ethernet Internet works. Students will build, configure, and troubleshoot an Ethernet, TCP/IP LAN, which includes hosts, hubs, routers, switches, and all necessary cabling.
Prerequisite(s): NET-138 or NET-191, NET-211
Prerequisite(s): NET-222

NET-242
3.00
CISCO Wide Area Networks (WAN)
The Advanced Wide Area Networking course provides students with a comprehensive study of the differences between the following WAN services: LAPB, Frame Relay, ISDN/LAPD, HDLC, PPP, and DDR. Students will learn to configure the routers to implement Frame Relay LMIs, maps, and sub-interfaces. Identify PPP operations to encapsulate WAN data on Cisco routers. Students will identify ISDN protocols, function groups, reference points, and channels.
Prerequisite(s): NET-138, NET-222, NET-232

NET-313
3.00
Windows Server
Students will install and configure the Microsoft Windows Network Operating System, investigate network configurations, manage users and groups, security and permissions, policies and profiles, remote server management, install applications and establish network printing.
Prerequisite(s): NET-138, or NET-191 and NET-211
Prerequisite(s) or Corequisite(s): NET-110, NET-790, NET-222, NET-791

NET-343
3.00
Windows Directory Services
This course is designed to provide the student the necessary information to pass the implementing and supporting Microsoft NT Server exam. The Microsoft Certified Systems Engineer (MCSE) exams are performance-based exams that prove you can apply your knowledge in a variety of situations. The students will apply that information through extensive hands-on lab situations and comprehensive CD ROM based study material.
Prerequisite(s): NET-313

NET-345
3.00
Windows Scripting
Students will learn to develop and use VBScript, and WMI, scripting techniques to administer Windows operating systems. Concepts, terminology, components and the design of scripts will be addressed throughout this course.
Prerequisite(s): NET-110

NET-347
2.00
Windows Directory Scripting
Students will learn to develop and use VBScript, and WMI, scripting techniques to administer Windows operating systems. Concepts, terminology, components and the design of scripts will be addressed throughout this course.
Prerequisite(s): NET-345, NET-313, NET-413

NET-413
4.00
Linux System Administration
Linux Operating system will teach you how to use Linux operating system and introduce you to the Desktop. The class is for new users of the Linux environment and CLI. You will learn fundamental command-line features of the Linux environment including file system navigation, file permissions, the vi text editor, command shells, and basic network use.
Prerequisite(s): NET-110, NET-790, NET-222, NET-791
Prerequisite(s): NET-138 or NET-191 and NET-211

NET-455
3.00
Advanced Linux System Administration
This Linux course will teach you how to use the advanced features in both the Linux operating system. The course is for advanced users of the Linux environment. You will learn how to do low-level configuration of the OS and configure different modules for hardware/software components. This course will also configure Network Server services and how to secure the Network System against Network attacks.
Prerequisite(s): NET-413

NET-483
3.00
Network + Certification
Students will learn the fundamentals of todays network operating systems including Windows and Linux based systems. Time will also be spent on networking including standards, protocols, and LAN architecture. Students will be exposed to the physical components that make up a network. Additional topics covered will include installation procedures, network services, network administration and security.
Prerequisite(s): NET-790, NET-191, NET-211

NET-485
3.00
Advanced Network Security
This course will take a more hands on approach to network security. The students will look at securing network devices, remote access security, security testing and monitoring, and developing security policies and risk assessment. The students will be exposed to various types of network security software. Course will look at specifics for Windows, Linux, and Cisco IOS.
Prerequisite(s): NET-138, NET-790

NET-486
2.00
Novell Network Certification
This course will prepare the student for the Novell Certified Network Engineer (CNE) certification process - whether you are seeking your first certification or updating your certification for Intranet ware. This course covers all seven of the Novell CNE exams. It provides a clear path to mastery of every aspect of the material a successful Novell CNE candidate needs to know.

NET-513
4.00
Novell Network Administration
Students will install and configure the Novell Network Operating System, investigate network configurations, create users and groups, and configure shared resources across the network, using login scripts, management software to manage data, install applications and establish network printing. (DOS, Windows 2000, Windows/98, Novell)

NET-611
2.00
Network Security
This course will portrait things that can go wrong with a computer network and provide a discussion of the tools available to counteract them. This course will walk through a security audit and the process of developing an effective security policy. Students will learn how to implement security measures--including logging, encryption, and packet filtering--on your existing network infrastructure. Course will look at specifics for Unix, Windows NT, Cisco IOS, and NetWare.
Prerequisite(s): NET-314, NET-191, NET-211, NET-110, NET-790, NET-483, NET-222, NET-791, NET-413, NET-232, NET-161

NET-612
3.00
Fund. Network Security
This course will portrait things that can go wrong with a computer network and provide a discussion of the tools available to counteract them. This course will walk through a security audit and the process of developing an effective security policy. Students will learn how to implement security measures--including logging, encryption, and packet filtering--on your existing network infrastructure. Course will look at specifics for Unix, Windows NT, Cisco IOS, and NetWare.
Prerequisite(s): NET-138, NET-110, NET-790

NET-683
3.00
Internetworking Services
This course will cover the various Web topics that exist in today's Information Technology Environment and how to configure and manage those resources in your network environment. Students will examine topics that are important to organizations connected to the internet such as: Web access, maintaining and ensuring security, integrating e-mail to the web, FTP and media services, basic IP configuration and troubleshooting. This course will cover the two most popular operating systems in regards to Web server for the OS. This course will place the emphasis on skill building and concepts for Web administration of a network system.

NET-750
3.00
Telecommunications Services
This course is a study of the telephone system including facilities, key systems, and PBXs. Two-wire and four-wire circuits will be discussed along with E&M and SF signaling. Students will install, maintain, and troubleshoot several varieties of key systems and PBXs. Use of manufacture manuals to set up working systems is emphasized. Interfacing key systems to PBXs and PBXs to PBXs is included in the lab. This class also covers the theory of fiber optic transmission of communication signals. Subjects covered include light wave theory types and placement of cables, connectors, splicing, transmitters, and receive power budgets, etc. Students in lab will get experience in working with several types of glass fiber cable and associated electronics.
Prerequisite(s): NET-138 or NET-191 and NET-211

NET-774
1.00
Help Desk I
Students will learn to identify systems lockups, network errors and operating systems hang-ups and conflicts, and apply a combination of hardware and software skills to interface, configure and troubleshoot computer controlled systems. System components that will be diagnosed and repaired are: motherboards, power supplies, memory devices, floppy disk drives, hard drives, communication interfaces, and printers.

NET-775
1.00
Help Desk II
Students will learn to meet the demands of the user support industry. They will become familiar with the tools and technologies that are available in a support environment. They will also learn the processes associated with a help desk or customer service position. Time will be spent investigating the process of asset management, problem resolution tools and the office space in a support environment.
Prerequisite(s): NET-774

NET-776
1.00
Help Desk III
This course uniquely prepares the student to keep the customer productive by focusing on the business needs of the customer, establishing credibility and trust, by using real world scenarios. This is the 3rd course in a series of 4 in the 2 year program. Emphasis is given to problem solving and troubleshooting, team dynamics, and interpersonal communication skills in a college campus. This course exposes the student to common industry tools and technologies used in providing exceptional customer support.
Prerequisite(s): NET-774, NET-775

NET-777
1.00
Help Desk IV
This course uniquely prepares the student to keep the customer productive by focusing on the business needs of the customer, establishing credibility and trust, by handling real world scenarios. This is the 4th course in a series of 4 in the 2 year program. Emphasis is given to problem solving and troubleshooting, team dynamics, and interpersonal communication skills in a college campus. This course exposes the student to common industry tools and technologies used in providing exceptional customer support.
Prerequisite(s): NET-774, NET-775, NET-776

NET-784
2.00
Help Desk Lab
Students will learn to meet the demands of the user support industry through hands-on experiences. They will become familiar with the tools and technologies that are available in a support environment. They will also learn the processes associated with a help desk or customer service position. Time will be spent in different real-life support environments and working through situational experiences.

NET-790
3.00
PC Support I
Students will learn to identify systems lockups, network errors and operating systems hang-ups and conflicts and apply a combination of hardware and software skills to interface, configure and troubleshoot computer controlled systems. System components that will be diagnosed and repaired are: motherboards, power supplies, memory devices, floppy disk drives, hard drives, communication interfaces, and printers.

NET-791
3.00
PC Support II
Students will learn to identify systems lockups, network errors and operating systems hang-ups and conflicts and apply a combination of hardware and software skills to interface, configure and troubleshoot computer controlled systems. System components that will be diagnosed and repaired are: motherboards, power supplies, memory devices, floppy disk drives, hard drives, communication interfaces, and printers.
Prerequisite(s): NET-790

NET-949
4.00
Special Topics - Tech Support
This course, usually offered on a limited basis only, provides an in-depth study on a topic of general interest pertaining to this department.

PHYSICAL EDUCATION ACTIVITIES

PEA-187
1.00
Weight Training I
An introductory course designed to help each student: improve muscular strength; gain knowledge and understanding of weight training theory and practice; develop a personalized weight training program.

PEA-189
1.00
Weight Training 2
An advanced course designed to help each student be able to teach and demonstrate improve muscular strength; gain knowledge and understanding of weight training theory and practice; develop a personalized weight training program.

PEA-195
3.00
Essentials Athletic Strength/Cond
This course will explore the most current research of the scientific principles, concepts and Theories of strength training and conditioning as well as their practical applications to athletic performance. This course is designed to assist students who are interested in coaching or a possible career in strength training and conditioning.

PEA-205
1.00
Tech. & Theory of Prog Resist Training I
A progressive resistance strength training course designed to instruct students in technique, exercises, and theory of weight training periodization concepts, such as Olympic Power Lifting, Free Weight Lifting, Circuit and Cardio Circuit Training.

PEA-207
1.00
Tech of Prog. Resistance Training 2
An advanced progressive resistance strength training course designed to allow students to instruct and teach different technique, exercises, and theory of weight training periodization concepts, such as Olympic Power Lifting, Free Weight Lifting, Circuit and Cardio Circuit Training.

COACHING OFFICIATING

PEC-107
2.00
Sports and Society
This course will explore the relationship between sports and our society in which it exists. This course will give students an opportunity to discuss and critically think about the ethics of sports and how sports affects society. This course will also examine the document of Code of Ethics, Rights and Responsibilities, and Standards for Professional Practice and Competent Performance. This component satisfies the 5-hour ethics requirement as mandated by the Iowa Board of Educational Examiners.

PEC-110
1.00
Coaching Ethics, Techniques, & Theory
Techniques and Ethics of Coaching is a one credit course that will provide coaches, and future coaches, the knowledge and understanding of the techniques of coaching interscholastic athletics. In addition, this course is designed to give coaches, and future coaches, the opportunity to prepare and reflect on the many coaching concepts and responsibilities. The course format allows coaches, and future coaches, the ability to direct their effort toward a particular sport of choice.

PEC-111
2.00
Techniques and Theory of Coaching
This course will provide a knowledge and understanding of the techniques and theory of coaching interscholastic athletics. This is one of four courses that meets the requirements for the coaching authorization issued by the Iowa Department of Education.

PEC-115
1.00
Athletic Development and Human Growth
This course will provide a knowledge and understanding of human growth and development of children and youth in relation to physical activity. This is one of four courses that meets the requirements for the coaching authorization issued by the Iowa Department of Education.

PEC-121
2.00
Body Structure and Function
This course will provide a knowledge and understanding of the structure and function of the human body in relation to physical activity. This is one of four courses that meets the requirements for the coaching authorization issued by the Iowa Department of Education.

PEC-123
1.00
Anatomy for Coaching
This one (1) credit hour course will provide a basic knowledge of the structure and function of the human body in relation to physical activity. This one (1) hour credit course meets the requirement for the Structure and Function component for coaching authorization as required by the Iowa Department of Education. This one (1) hour credit course focuses on the four (4) main body systems that are appropriate to physical activity: (1) skeletal system, (2) muscular system, (3) circulatory system, and (4) respiratory system.

PEC-127
2.00
Care and Prevention of Athletic Injuries
This course will provide a knowledge and understanding of the prevention and care of athletic injuries and medical safety problems relating to physical activity. This is one of four courses that meets the requirements for the coaching authorization issued by the Iowa Department of Education.

PEC-152
1.00
Tech. and Theory of Coaching Football
Theory and practice in the coaching of football. Emphasis will be on coaching philosophies, fundamentals, psychology, and strategies. Course includes objectives, rules, regulations and policies as well as performance skills, technical information, and organization and management practices. Training and conditioning specific to football, fitting of equipment, specific safety precautions and officiating methods will also be included.

PEC-158
1.00
Tech and Theory of Coaching Football 2
Advanced theory and practice in the coaching of football. Emphasis will be on advanced coaching philosophies, fundamentals, psychology, and strategies. Course includes objectives, rules, regulations and policies as well as performance skills, technical information, and organization and management practices. Training and conditioning specific to football, fitting of equipment, specific safety precautions and officiating methods will also be included. Students will develop a booklet of drills based on their skill position.

PEC-170
1.00
Sports Officiating: Basketball
This course emphasizes guiding principles and standards, rules, mechanics and procedures for officiating basketball.

PEC-171
1.00
Sports Officiating: Softball
This course emphasizes guiding principles and standards, rules, mechanics and procedures for officiating softball.

PEC-172
1.00
Sports Officiating: Baseball
This course emphasizes guiding principles and standards, rules, mechanics and procedures for officiating baseball.

PEC-177
1.00
Sports Officiating: Football
This course emphasizes guiding principles and standards, rules, mechanics and procedures for officiating football.

PHY ED AND HEALTH

PEH-141
2.00
First Aid
This course is a study of the fundamentals of first aid with emphasis on the prevention and emergency care of injuries of all kinds. Units using multimedia instruction and cardiopulmonary resuscitation will be given with American Red Cross certification. This course also provides clarification when and how to activate the Emergency Medical Services (EMS) system, thus eliminating the confusion that often causes delays in obtaining emergency medical care. This course also emphasizes the need for rapid medical assistance in life-threatening emergencies. Certification in CPR/AED and Responding to Emergencies (First Aid component) will be awarded to students who meet course completion requirements.

PEH-175
2.00
Sports Psychology
This course will offer students the opportunity to learn correct concepts and applications of sport psychology. Students will learn about mental preparation for sport competition. Sport psychology will assist in enhancing both athletic performance and the social-psychological aspect of human development

PEH-185
3.00
Contemporary Health Issues
This course presents a basic understanding of the relationship between the human body and the environment in which it exists. This course addresses principles and practices of personal health and disease prevention. The course also develops an appreciation for the social, economic and medical aspects of man and disease as it relates to personal and community living. Topics include dimensions of health; making consumer and health care choices; emotional maturity and stress management; physical activity; diet, nutrition, and weight management; consequences of drug, alcohol, and tobacco use; sexuality; responsible sexual behavior.

PEH-948
1.00
Special Projects
1, 2, 3, or 4 credit hours. Highly motivated students may wish to work intensively on a creative or research project. The student should possess the necessary background for such works and should initiate an application for such study. A student must obtain written permission from supervising staff member to enroll in this course.

PEH-949
2.00
Special Topics
The department will offer from time to time credit offerings in selected special areas of interest on a topical basis per semester.

PHYSICAL EDUCATION TRAINING

PET-105
3.00
Basic Athletic Training
This course will provide a knowledge and understanding of the prevention and care of athletic injuries and medical safety problems relating to physical activity. This is one of the four courses that meet the requirements for the coaching authorization issued by the Iowa Department of Education.

PET-119
3.00
Intro to Biomechanics
This course deals with the study of muscles as they are involved in the science of human movement. Since muscles attach to bones through tendons, both skeletal and muscular structures are involved. At the completion of this course the student should be able to (1) identify on a human skeleton and/or a living subject the most important bones and bony features for the major joints of the body, (2) label the important bones and bony features on a skeletal chart, (3) draw and label major muscles on a skeletal chart, (4) identify and palpate these muscles on a human subject, (5) list and organize the muscles that produce the primary movements for all the major joints of the body, and (6) analyze basic movements in terms of muscle actions. Information will also be presented on how to strengthen and stretch most of these muscles.

PET-141
3.00
Athletic Training Field Experience
This class is designed to give students whom are interested in the field of Athletic Training the hands on experiences in the training room, as well as on the practice and playing fields. The students will assist Certified Athletic Trainers in the daily operations of the training room, practice and game preparation, as well as game coverage. Students will assist in evaluations, as well as observe treatments and partaking in the evaluation, as rehabilitation process of the student athletes. Students will also receive a brief history of Sports Medicine.

INTERCOLLEGIATE PHYSICAL EDUC

PEV-101
1.00
Varsity Sports Conditioning
This course includes the conditioning and sport-specific activities and drills performed by student athletes in preparation for varsity sports participation. A variety of conditioning activities are emphasized, such as strength training, stretching, endurance, agility, and balance exercises. Related topics include methods of weight training, flexibility, aerobic exercises, safety, rehabilitation, and nutrition plans in preparation for varsity sports participation.

PEV-102
1.00
Varsity Sports Conditioning 2
This course includes the conditioning and sport-specific activities and drills performed by student athletes in preparation for varsity sports participation. A variety of conditioning activities are emphasized, such as strength training, stretching, endurance, agility, and balance exercises. Related topics include methods of weight training, flexibility, aerobic exercises, safety, rehabilitation, and nutrition plans in preparation for varsity sports participation. This class is specifically for sophomore students.
Prerequisite(s): PEV-101

PEV-105
1.00
Varsity Sports Participation
This course includes the knowledge and skills gained through participation in an intercollegiate sport at Iowa Central Community College. Participants must meet NJCAA eligibility requirements and must complete the season as a squad member.

PEV-106
1.00
Varsity Sports Participation 2
This course includes the knowledge and skills gained through participation in an intercollegiate sport at Iowa Central Community College. Participants must meet NJCAA eligibility requirements and must complete the season as a squad member. This class is specifically for sophomore students.
Prerequisite(s): PEV-105

PEV-156
1.00
Drill Team
This course includes the knowledge and skills gained through participation in a collegiate activity at Iowa Central Community College. A maximum of 4 semester hours may be earned; however, no more than 1 semester hour of credit may be earned per semester.

PEV-190
1.00
Varsity Spirit Squad
This course includes the knowledge and skills gained through participation in a collegiate activity at Iowa Central Community College. A maximum of 4 semester hours may be earned; however, no more than 1 semester hour of credit may be earned per semester.

PEV-949
1.00
Dance Technique and Fundamentals
This course is designed to explore the techniques and advanced skills of dance and body movement. The purpose is to provide instruction of technical elements necessary for competitive level dancers. This class will implement and combine all areas of preparation for the well rounded athletic dancer to aid in preparation of routines for performance and continued dance education and experience.

PHILOSOPHY

PHI-101
3.00
Introduction to Philosophy
Socrates once said, "The unexamined life is not worth living." Philosophy is an attempt to examine life by considering such questions as: What is knowledge? What is Truth? Does beauty exist? Is freedom an illusion? Are there such things as right and wrong? How should we relate to other people? Is there a god? How can we know anything about these questions? Understanding questions of this kind and proposed answers to them is the nature of philosophy.

PHI-145
3.00
Introduction to Ethical Conflicts
This course explores contemporary ethical conflicts as a way to develop students' critical thinking skills. Students will examine various moral theories and their application to ethical problem-solving by the use of case studies. Students will determine principles upon which to base their ethical decision making.

PROFESSIONAL PHOTOGRAPHY

PHT-183
3.00
Photography I
This course will explore basic techniques and artistic concerns involved in creating photographs through a combination of lecture, demonstration, and hands-on exercises. Student will be introduced to the Elements of Art and Principles of Design needed for successfully creating photographs including basic layout and design, color theory, shape, form and composition. Students will learn to use a DSLR (Digital Single Lens Reflex) camera in manual mode. Emphasis is placed on properly exposing a photograph focusing on aperture, shutter speed, and ISO. A basic introduction of image editing software will be included in the course. Via self- and class critiques, students will evaluate their own work and that of their peers. Required participation in the college photography show. Students will be introduced to proper presentation and framing methods. Students do not need prior photography experience.

PHT-185
3.00
Photography II
Students will continue to master photography skills developed in Photography I. Technical proficiency with camera functions and composition will be increased. Posing and studio lighting methods will be introduced. This course explores the history, aesthetics, and the conceptualization of photographic imagery. Includes darkroom procedures in developing, printing, and finishing black and white photographic materials. All photography projects and sketchbook assignments will encourage the development of a personal visual style. Other topics include: special shooting techniques, multiple exposure, and painting with light. Students will explore the work of both historical and contemporary photographers. Via self- and class critiques, students will evaluate their own work and that of their peers. Participation in the student photography show is required.
Prerequisite(s): ART-184 or PHT-183

PHT-189
3.00
Photography III
Students will continue to master photography skills developed in Photography II. Technical proficiency with camera functions and composition will be increased as students also develop advanced posing and studio lighting techniques. Students will utilize a broad range of creative photographic techniques involving digital, traditional, and artistic methods. Emphasis is on the understanding, control, and manipulation of lighting and lighting equipment using both additive and subtractive lighting techniques. Students will increase their lighting repertoire by using mixed light, location lighting, and painting with light. This course will also cover the definitions and characteristics of fine art photography. Various fine art photographers are examined with an emphasis in the visual tools they use to create fine art work. Via self- and class critiques, students will evaluate their own work and that of their peers. Participation in the student photography show is required.
Prerequisite(s): PHT-185

PHT-192
3.00
Photography IV
Students will continue to hone the photography skills developed in Photography III. Technical proficiency with camera functions, composition skills, and posing techniques will be increased. Students will master advanced studio lighting techniques, which includes studio and portable lighting equipment and the use of mixed natural and man-made light. Photography projects and sketchbook assignments will encourage the development of a personal visual style. Students will explore the work of both historical and contemporary photographers. This course introduces historical and alternative photographic processes used in both the fine art and commercial world. Projects involving abstraction and character-portraits allow the student to creatively refine fundamental photography techniques. Via self- and class critiques, students will evaluate their own work and that of their peers. Participation in the student photography show is required.
Prerequisite(s): PHT-189

PHT-195
3.00
Basic Set-Prop-Design-Const-Painting I
This course introduces the many roles of the Photographer by covering the tasks and skills needed such as identifying and obtaining locations, wardrobe, stylists and props, and special equipment. It is designed for advanced photo students with a solid knowledge of professional equipment and skills. Students explore a variety of creative techniques for producing, editing and altering images using software and digital tools. Emphasis is placed on strategies, promotional campaigns, personal and business resources, and photo-specific sales techniques. Via self- and class critiques, students will evaluate their own work and that of their peers. Required participation in the college photography show.
Prerequisite(s): PHT-185

PHT-196
3.00
Basic Set-Prop-Design-Const-Painting II
Covers advanced business organization and planning techniques appropriate for media and photographic production businesses, including pre-production planning, budgeting and scheduling. Students will create mood-boards and concepts for creative photo locations including developing props and scenes. Students work on photographic projects where they may explore personal, aesthetic or technical interests through the development of an individualized photographic series. Via self- and class critiques, students will evaluate their own work and that of their peers. Required participation in the college photography show.
Prerequisite(s): PHT-195

PHT-230
3.00
Advanced Portraiture
Students will develop advanced techniques for photographing people for portrait, fashion, or illustration purposes. Topics include the physical, psychological, and compositional aspects and characteristics of different portrait styles. Application of ethics, communication, and the business of portraiture will be covered. Projects, including both environmental portraiture and studio portraits, provide opportunities for students to explore lighting styles, subject, pose, exposure, and print presentation. Portrait photographers, critical thinking, and aesthetics in relation to personal creativity and expression in portraiture will be discussed. This course is intended for intermediate and advanced photography students. Via self- and class critiques, students will evaluate their own work and that of their peers. Required participation in the college photography show.
Prerequisite(s): PHT-189

PHT-233
3.00
Commercial Photography
This course provides in-depth study of professional commercial photography. Business practices, tools, techniques, and applications are explored via demonstrations, assignments, and on-the-job partnerships with community businesses and non-profits. Students will learn to apply exposure techniques, camera filters, composition, and the types and characteristics of light unique to commercial photography. Course work includes in-depth study of advertising photography; studio and location camera techniques and lighting; model, food, and architectural photography; layout specifications and art direction; corporate and stock photography; digital imaging applications; and current commercial business practices. Via self- and class critiques, students will evaluate their own work and that of their peers. Participation in the student photography show is required.
Prerequisite(s): PHT-185

PHT-250
2.00
Marketing in Photography
Students will learn to identify and reach targeted potential markets in photography. After establishing an authentic personal brand, each student will incorporate their brand into a range of outreach strategies, websites and blogging. Students will build social media marketing platforms and learn to use them effectively, develop promotional materials such as client welcome packets, and construct effective databases. Video marketing projects will provide the opportunity to create promotional videos for clients and businesses.
Prerequisite(s): PHT-185

PHT-258
2.00
Business of Photography
This course will guide students through crucial processes of starting and operating a successful photography business. Students will assess various business structures and learn to navigate the business registration process. They will also develop a business plan, build a budget, create a logo, learn effective methods for pricing goods and services, and gain an understanding of tax requirements. Resume and cover letters will be created in the course. Special emphasis is placed on designing and building a business around targeted clients.
Prerequisite(s): BUS-102, PHT-250

PHT-288
3.00
Photography in Journalism
Students will learn to shoot and select photographic images that clearly communicate stories to their viewers. Collaborative activities will consist of working with writers to illustrate news stories and meet deadlines. The ethics of photography in journalism will also be examined, including bias. Projects, which include photographing a variety of people and events, will encourage the creation of dynamic images that convey information in a clear and compelling way. Students will gain real-world experience by attending and photographing various college and community events. Students are required to participate in the college photography show.
Prerequisite(s): PHT-183

PHT-299
1.00
Photography Portfolio Development
Students will build a resume and prepare a professional photography portfolio that can be presented to potential clients. Students will learn to assess and select photographs for the portfolio that best represent their technique, skills, range, and area of expertise. They will professionally present their work both digitally and non-digitally. Internet and app-based portfolio tools will also be explored.
Prerequisite(s): PHT-189

PHYSICS

PHY-162
4.00
College Physics I
This course provides a general background for those who do not plan advanced study in physics or engineering. Topics covered include elementary mechanics, including kinematics and dynamics of particles; work and energy; linear and angular momentum; rotational motion; gravitation; thermodynamics; and oscillation. This course satisfies a general education requirement in the Math/Science area.
Prerequisite(s): Minimum ALEKS math placement score of 30 is required. Enrollment in or completion of MAT-127 or an ALEKS math placement score above 45 is strongly recommended.

PHY-172
4.00
College Physics II
This course is a continuation of PHY-162 College Physics I. Topics covered include waves; electric forces and fields; direct and alternating currents; magnetic forces and fields; ray optics and image formation; and atomic structure.
Prerequisite(s): PHY-162 with a C grade or better

PHY-184
4.00
Applied Physics
The Applied Physics course blends basic technical principals with laboratory practice that involves realistic devices used by technicians in their everyday work. Students will gain hands-on experience using applied laboratory experiments to better understand mechanical, fluid, electrical and thermal systems.

PHY-212
5.00
Classical Physics I
This course is designed to meet the needs of students planning to major in engineering and various fields of science. Topics covered include elementary mechanics, including kinematics and dynamics of particles; work and energy; linear and angular momentum; rotational motion; thermodynamics, and gravitation.
Prerequisite(s): Prerequisite:Concurrent enrollment in MAT-210 Calculus I or completion with a C or better. The latter is strongly recommended.

PHY-222
5.00
Classical Physics II
This course is a continuation of PHY-212 Classical Physics I. Topics covered include oscillations and waves; electric forces and fields; direct and alternating currents; magnetic forces and fields; ray optics and image formation.
Prerequisite(s): PHY-212 with a C grade or better

PHY-948
1.00
Special Projects
This course is open to students showing satisfactory preparation in a particular area of interest. Involves individual topic, conferences and preparation of reports. Designed to meet the needs of students wishing to study a selected topic in depth. Permission of the department chair and the staff member with whom the student wishes to work is required.

PHY-949
1.00
Special Topics
This course, offered usually on a one-time basis only, provides an in-depth study on a topic of general interest pertaining to this department.

PRACTICAL NURSING

PNN-121
1.50
Clinical Practicum 1
This course provides an opportunity for students to apply Fundamentals of Nursing in Health Care in the clinical setting with adult clients through the use of assessment, nursing diagnosis, planning, interventions and evaluation. A pass/fail grade is earned for this clinical course.
Prerequisites: Cardiopulmonary Resuscitation (CPR), Mandatory Reporter for child and adult abuse, completion of a 75-hour Nurse Aide class, on state of Iowa Nurse Aide Registry and BIO-168 Human Anatomy & Physiology I with lab. Co-requisites: HSC-112 or HSC-113 Medical Terminology, BIO 173 Human Anatomy & Physiology II with lab, BIO-151 Nutrition, PSY-121 Developmental Psychology, PNN-127 Fundamentals of Nursing in Health Care and PNN-206 Medication Administration for Nurses.

PNN-127
5.00
Fundamentals of Nursing in Health Care
This course introduces the art and science of nursing practice. Professionalism, nursing roles, critical thinking, ethical and legal concepts are emphasized. The concepts of the nursing process, communication, safety, pharmacology, the health-illness continuum and cultural diversity are introduced. Skills and technology utilized in the routine care of adult clients in traditional health care settings are presented.

PNN-206
1.00
Medication Administration for Nurses
This course provides a basic foundation of pharmacology concepts and math calculations for the adult and pediatric patient in the clinical setting. Syringe usage, injections and nonparenteral routes, reconstitution, and safe medication administration are emphasized. Drug classifications, nursing implications, and side effects of medications are introduced.

PNN-311
1.00
PN Issues & Trends
This course is designed to help the practical nursing student develop an awareness and understanding of responsibilities to self and career. The course content includes historical perspectives, ethical and legal considerations, professional organizations, leadership skills, career opportunity review, health resources and career responsibilities.
Prerequisite(s): PNN-621, PNN-622
Prerequisite(s) or Corequisite(s): HSC-113, PSY-121, BIO-151, BIO-168, BIO-173
Prerequisite(s) or Corequisite(s): PNN-811, PNN-731

PNN-621
8.50
Life Span Health Care
This course is designed for the beginning nursing student and introduces the health care needs of individuals and families. It presents content on the nurse's role in health promotion, maintenance and disease prevention while looking at the effects of the environment on the health of children, pregnancy, adults and the elderly. The focus is on common health problems associated with each body system and an introduction of pharmacology in the therapeutic management of disease.

PNN-622
4.00
Clinical Practicum 2
This course provides an opportunity for students to apply Life Span Health Care theory in the clinical setting with different age groups through the use of assessment, nursing diagnosis, planning, intervention and evaluation.

PNN-731
2.50
Clinical Practicum
This course provides the practical nursing student with the clinical opportunity to demonstrate further proficiency in the care of adult medical/surgical patients and a limited experience with a leadership role. A pass/fail grade is earned for this clinical course.
Corequisite(s): PNN-311, PNN-811
Prerequisite(s): PNN-621, PNN-622
Prerequisite(s) or Corequisite(s): HSC-113, BIO-151, BIO-168, BIO-173, PSY-121

PNN-811
1.00
Selected Clinical Nursing
This course is designed to assist the practical nursing student to understand common adult health problems with emphasis on the nursing process and pharmacology.
Corequisite(s): PNN-311, PNN-731
Prerequisite(s): PNN-621, PNN-622
Prerequisite(s) or Corequisite(s): HSC-113, BIO-151, BIO-168, BIO-173, PSY-121

POLITICAL SCIENCE

POL-111
3.00
American National Government
This survey course introduces the general principles, policies, and problems of the national government in the United States. Topics covered include federalism; the rights and duties of citizens; the institutions and processes of government; and political participation.

POL-112
3.00
American State and Local Government
This survey course introduces the general principles and problems of representative government at the state and local levels in the United States. A discussion of current political issues and alternative public policies impacting on states and localities will be included in the course.

POL-121
3.00
International Relations
This course involves the study of international affairs, including major theories and relating to global political systems, organizations, economics, and international conflict. The course is designed to give the student a better understanding of issues in international relations.

PSYCHOLOGY

PSY-111
3.00
Introduction to Psychology
This course includes the tools for the study of psychology, basic psychological processes, personality and social behavior, contemporary knowledge of motives, intelligence, learning and emphasis on the language of modern psychology.

PSY-112
3.00
Psychology of Human Relations
The basic psychological principles of human behavior and the operation of these principles in helping students to understand themselves and their relationships with others socially, in the family and the world of work, are examined in this course.

PSY-121
3.00
Developmental Psychology
This course traces the fundamental patterns of normal health development from conception to death. Each developmental period is examined in light of the characteristics of the period and the demands of the American culture. Recent research in the studies relating to different ages is reviewed.

PSY-222
3.00
Child Psychology
This course focuses on the normative and non-normative influences of the physical, cognitive and socioemotional processes of children from conception to age 12. The course will also examine how the dynamics of family, school, and society affect development.

PSY-224
3.00
Adolescent Psychology
This course concentrates on the bidirectional view of how physical changes affect socioemotional and cognitive processes for adolescents age 10-19. It also includes the tools for the study of learning theories, community resources, and familial support needed to help adolescents successfully transition into adulthood.

PSY-241
3.00
Abnormal Psychology
This course provides an examination of the various psychological disorders as well as theoretical, clinical, and experimental perspectives of the study of psychopathology. Emphasis is on terminology, classification, etiology, assessment, and treatment of the major psychological disorders.

PSY-251
3.00
Social Psychology
Social psychology is the study of the ways people think about, feel and behave in social situations. This involves understanding how people influence and are influenced by the people around them. The primary goals of this course is to introduce you to the perspectives, research methods, and empirical findings of social psychology.

PSY-281
3.00
Educational Psychology
This course introduces the student to the theoretical foundations of learning, measurement of learning, personal characteristics of pupils and educational procedures.

PSY-949
1.00
Special Topics
The department will offer from time to time credit offerings in selected special areas of interest on a topical basis per semester.

RADIOLOGIC TECHNOLOGY

RAD-122
4.00
Radiographic Procedures I
The student will study patient positioning and common procedures performed in the Radiology Department. Procedures include: upper and lower extremities, chest and abdomen. A vital part of this course will be theory of exposure, film development and dark room techniques.
Corequisite(s): RAD-210, RAD-320
Prerequisite(s): HSC-168, HSC-113 and a college-level math course
Prerequisite(s) or Corequisite(s): HSC-104, BIO-173

RAD-142
4.00
Radiographic Procedures II
This course is a continuation of Radiographic Procedures I in which the student will be given an in depth integrated coverage of the thoracic viscera, abdomen, digestive system, and urinary system.
Corequisite(s): RAD-230, RAD-365, RAD-430
Prerequisite(s) or Corequisite(s): BIO-173, HSC-104
Prerequisite(s) or Corequisite(s): RAD-122, RAD-210, RAD-320

RAD-163
2.50
Radiographic Procedures III
This course is a continuation of Radiographic RAD-230 radiographic anatomy and procedures of the skull and its contents. Emphasis will be given to those procedures commonly performed in the radiology department.
Corequisite(s): RAD-270, RAD-182
Prerequisite(s) or Corequisite(s): RAD-142, RAD-230, RAD-365, RAD-430

RAD-182
2.00
Special Procedures
Students will study detailed anatomy, physiology, and radiographic procedures of the central nervous and circulatory systems. Contrast medias, procedures used, and reactions are discussed. Also presented are new technologies and modalities within Radiology.
Corequisite(s): RAD-163, RAD-270
Prerequisite(s) or Corequisite(s): RAD-142, RAD-230, RAD-365, RAD-430

RAD-210
4.00
Clinical Education I
This course enables the student to become oriented to the health facility and the department of radiology. Time is allotted the student to observe procedures, under direct supervision and gain beginning skills in Radiography.
Corequisite(s): RAD-122, RAD-320
Prerequisite(s): BIO-168, HSC-113 and a college-level math course
Prerequisite(s) or Corequisite(s): BIO-173, HSC-104

RAD-230
4.00
Clinical Education II
This clinical practicum is a continuation of Clinical Education I. In addition to doing the procedures learned in the first semester, the student observes more complex examinations and gradually assumes an increasing amount of responsibility for the performance of those procedures.
Corequisite(s): RAD-142, RAD-430, RAD-365
Prerequisite(s): RAD-122, RAD-210, RAD-320
Prerequisite(s) or Corequisite(s): BIO-173, HSC-104

RAD-270
3.50
Clinical Education III
This clinical practicum builds on Clinical Education I and II. It focuses on special procedures, computerized tomography, angiography, magnetic resonance, ultrasonography and nuclear medicine.
Corequisite(s): RAD-182, RAD-163
Prerequisite(s) or Corequisite(s): RAD-142, RAD-230, RAD-365, RAD-430

RAD-320
2.00
Imaging I
The principles of radiographic imaging are investigated in this course. The history and methods of recording radiographic images are explored. Special emphasis will be placed on the factors that determine image quality.
Corequisite(s): RAD-122, RAD-210
Prerequisite(s): BIO-168, HSC-113 and a college-level math course
Prerequisite(s) or Corequisite(s): HSC-104, BIO-173

RAD-365
2.00
Imaging II
This course is a continuation of RAD-320 Imaging I in which the student will continue to explore the principles of radiographic imaging. Imaging principles will involve such items as automatic processing, film characteristics, and geometrical factors.
Corequisite(s): RAD-230, RAD-142, RAD-430
Prerequisite(s): RAD-210, RAD-122, RAD-320
Prerequisite(s) or Corequisite(s): HSC-104, BIO-173

RAD-430
3.00
Radiographic Physics
Explores the physical concepts of energy, the structure of matter, electrostatics, electrodynamics, magnetism, electromagnetism, electric generators and motors. The principles of electricity are studied as it relates to x-ray circuits, rectification, and x-ray production. X-ray tubes, rating charts, and interaction of x-rays with matter are included.
Corequisite(s): RAD-365, RAD-142, RAD-230
Prerequisite(s) or Corequisite(s): BIO-173, HSC-104
Prerequisite(s) or Corequisite(s): RAD-210, RAD-122, RAD-320

RAD-510
6.00
Clinical Education IV
Clinical experience in the fourth semester is primarily spent in continuous practice in improving the techniques and procedures previously experienced, with on going film critique.
Corequisite(s): RAD-770, RAD-896
Prerequisite(s) or Corequisite(s): RAD-163, RAD-182, RAD-270

RAD-570
8.00
Clinical Education V
The student gains experience in the art of pediatric radiography. The clinical practicum also serves as a continuation of clinical experience providing opportunity to demonstrate competency in all phases of radiologic technology.
Corequisite(s): RAD-738, RAD-850
Prerequisite(s) or Corequisite(s): RAD-510, RAD-770, RAD-896

RAD-620
4.50
Clinical Education VI
Students will continue to perform radiographic procedures with minimal supervision, exercising independent judgement, perfecting the techniques and procedures previously experienced.
Corequisite(s): RAD-690, RAD-946
Prerequisite(s) or Corequisite(s): RAD-570, RAD-738, RAD-850

RAD-690
1.00
Cross Sectional Anatomy
This course includes the principles and applications of cross sectional anatomy. The student will explore regions of the body in a transverse, sagittal, or coronal section and will be able to identify the anatomy of that area.
Corequisite(s): RAD-946, RAD-620
Prerequisite(s) or Corequisite(s): RAD-570, RAD-738, RAD-850

RAD-738
2.00
Radiologic Pathology
This course is designed to acquaint the student with certain changes which occur in disease and injury and their application to radiologic technology.
Corequisite(s): RAD-570, RAD-850
Prerequisite(s) or Corequisite(s): RAD-510, RAD-770, RAD-896

RAD-770
2.50
Film Critique and Evaluation
Criteria for diagnostic quality radiographs are studied. The principles of film evaluation is emphasized as it relates to technique, collimation and shielding, position and radiographic quality.
Corequisite(s): RAD-896, RAD-510
Prerequisite(s) or Corequisite(s): RAD-163, RAD-182, RAD-270

RAD-850
3.00
Radiation Protection & Biology
This course explores the history and biological effects of ionizing radiation. Methods of radiation measurement detection and protection are discussed.
Corequisite(s): RAD-738, RAD-570
Prerequisite(s) or Corequisite(s): RAD-510, RAD-770, RAD-896

RAD-896
2.00
Quality Assurance
Explores the theory and practice of quality assurance in the diagnostic radiology department. The use of quality assurance test tools, interpretation of results and management of a quality assurance program through record keeping is investigated in the laboratory.
Corequisite(s): RAD-510, RAD-770
Prerequisite(s) or Corequisite(s): RAD-163, RAD-182, RAD-270

RAD-946
2.00
Seminar
The student will re-examine previously learned material. Special topics will be selected for group discussions.
Corequisite(s): RAD-690, RAD-620
Prerequisite(s) or Corequisite(s): RAD-570, RAD-738, RAD-850

READING

RDG-010
1.00
Reading I
This course provides opportunities for students to implement a variety of study strategies to improve comprehension of college textbooks. The major focus is on application of study strategies to specific college texts. This course does not meet graduation credit requirements for certificate, diploma, general studies, or associate degree programs.

RDG-048
4.00
Basic Reading
This course introduces the student to strategies that, when applied properly, will increase reading skills. The major focus is on application exercises that reinforce reading and study skills. This course does not meet graduation credit requirements for certificate, diploma, general studies, or associate degree programs.

RECREATION AND FACILITIES MGT

REC-120
3.00
Sports Facililties Management
This course is the Introduction course within the Sports and Recreation Management Program, and will teach the student skills specific to managing sports and recreation facilities. Illustrative examples of facilities students will gain knowledge of include: recreation and fitness centers, and specialty facilities such as sports complexes, golf/tennis clubs, swimming pools, arenas and stadiums. The student will gain valuable information on the day-to-day operations of these various sports facilities and the intricacies involved in each different facility. Overviews in critical areas of facility management include: staffing, customer service, human relations, budgeting, analysis of financial statements, inventory control, safety, physical plant operations, risk management, and marketing.

REC-130
3.00
Intro. to Recreation Administration
This course will teach the student skills specific to managing a sports/recreation organization. Illustrative examples of sports/recreation administration students will gain knowledge of include: the different types of recreation organizations that exist and their functions, the positions and job duties within a sports/recreation organization, current trends and issues affecting the sports/recreation industry, facility planning, fundraising, and various principles in leadership/styles of leadership.

REC-135
3.00
Sports Facilities Marketing
This course will teach students skills specific to effective marketing and promoting a variety of sports and recreation venues. Students will gain knowledge in: tools used in marketing, market segmentation, target marketing to different populations, effective communication skills and strategies, and internal vs. external marketing. A portion of the course will provide students specific skills for marketing themselves to sports/recreation organizations; resumes, cover letters, and interview skills.

REC-145
3.00
Outdoor Recreation
This course will teach the student skills specific to the various forms of outdoor recreation and issues associated therewith. Students will gain knowledge in the types of outdoor recreation programming, organized vs. unstructured play, playgrounds and playground safety, components to successful park and playground design, outdoor recreation accessibility and accommodation, risk and liability, staffing of venues, and the economic impact of outdoor recreation in our society.

REC-155
3.00
Recreational Activity Management
This course will teach the student skills specific to planning and organizing recreation and sports activities. Students will gain knowledge in: the differences in leisure based and competitive recreation activity management, aspects critical to the successful implementation of sports and recreation events and programs, staffing and staff management, volunteer management, risk and liability, activity logistics, trends in sports activities, customer service, program evaluations, demographic programming, and "hands-on" experience in assisting with a sports/recreation event or activity.

REC-932
4.00
Internship
This course provides an opportunity to gain practical experience through on-site training in an approved business or governmental office. The actual training will be at the job site and will be under the supervision of a designated person in the business and will be coordinated by the program coordinator. This course is taken by students in the Recreation and Facility Management program. It is to be taken after the first year of classes is completed or with the permission of the program coordinator

RELIGION

REL-105
3.00
Introduction to Religion
This course examines various ways in which religion has been a social force in world cultures. A study is made of various religious answers to the ultimate questions posed by human life, including ideas about what is good or bad.

STUDENT DEVELOPMENT

SDV-035
1.00
Classroom Assistance
This course emphasizes the need for students to develop skills relating to classroom subject matter. Topics include course study techniques, vocabulary building, problem-solving, and organizational skills.

SDV-107
1.00
Health Science College Experience
This course will introduce Pre-Health Science students to the college's expectations, environment, and resources so that they may become competent learners.

SDV-108
1.00
The College Experience
This course will introduce students to the college's expectations, environment, and resources so that they may become more competent learners.

SDV-112
2.00
Success Seminar
In this course, students explore proven strategies for success in college and in life. Success Seminar provides exposure to college and cultural activities and helps students develop personal and professional skills, with a particular emphasis on self-management, interdependence, self-awareness, learning and study skills, emotional intelligence, self-acceptance, effective communication, and creative and critical thinking. This course is designed to ensure success in college courses, programs, and activities, while also helping to prepare students for eventual transfer and/or future employment.

SDV-116
1.00
Strategies for Online Academic Success
This course is specifically designed for the online learner and will introduce students to the college's expectations, environment, and resources so that they become more competent learners.

SDV-118
3.00
The Online Experience
This course will provide online students the understanding and expectation of learning in an online environment. Students will learn skills such as time management and study habits. They will also learn about academic integrity and how to become a successful online student. Prerequisites: Enrolled in an eight-week online program

SDV-166
1.00
Employee Relations I
This course will develop the student's awareness of factors affecting job success. Classroom learning activities will model respect for others, cooperative attitudes, and the benefits of diversity.

SDV-167
1.00
Employee Relations II
This course focuses on the human relations' aspects essential for new employees to fit into an existing organization. Teamwork and industry field trips will support the job getting and keeping functions of this course. Time management and interviewing questions will be presented.
Prerequisite(s): SDV-166 or instructor permission.

SDV-168
1.00
Employee Relations III
This course involves the student in the job application process. This course focuses on learning specific job seeking skills including networking, locating Internet job leads, writing an effective resume and cover letter, applying for a job, and interviewing for a job.
Prerequisite(s): SDV-167

SDV-195
1.00
Student Government
Iowa Central's Student Government consists of a governing body known as the Student Senate of Iowa Central. The purpose of the Student Senate is to see that all students enrolled at Iowa Central Community College have the opportunity to achieve an excellent education. The purpose of the Student Government course is to grant college elective credit in social sciences to students participating as Senators (members) of the Student Senate. Students may enroll in the course repeatedly, for a total of four semesters. Active involvement in the planning and implementation of student activities and community service projects sponsored by the Iowa Central Student Senate are the main focus of the organization/course.

SOCIAL MEDIA AND MARKETING

SMM-110
2.00
Writing for the Web
This course will explore the unique constraints of writing on the World Wide Web. Our emphasis will be on discovering new graphic and rhetorical structures for thinking and writing which are best suited for the nonlinear environment of the web. This course will apply techniques of professional writing for real world audiences, both community-based and commercial including text messaging, e-mail, community reviews and comments, web journals ("weblogs" or "blogs"), web pages, and communally-edited collections ("wikis"). Students will create or contribute to such texts, examine the conventions that have developed for each particular form, and reflect upon their cultural significance.

SMM-170
3.00
Social Media Campaigns
In this course, students explore the applications of social media in journalism and public relations, including driving traffic to other platforms, engaging directly with information consumers and establishing a brand online. We will study current technologies and others as they emerge during the semester.

SMM-200
3.00
Emerging Media Technologies
This course offers theoretical and applied approaches to journalism and citizen media strategies and tactics needed for the profession. Sample topics include social media and journalism, breaking news journalism, ethics in journalism, and entrepreneurship in journalism. Students work in a newsroom environment to utilize mobile devices and social media platforms to identify compelling story ideas, effectively break news, and report on important news events and issues while applying theories and concepts of online social networking to journalism.

SMM-210
3.00
Web Analytics
This course will explore basic online research principles and then examine two themes: web analytics and social media monitoring. Web analytics reviews the effectiveness of company communications and customer interactions on a range of digital marketing platforms including website, social media presences and mobile marketing. Social media monitoring involves using tools to listen to conversations about a brand across digital platforms and taking appropriate action.

SMM-910
3.00
Internship
To offer qualified students an opportunity to gain academic credit for professional media work that enhances the skills they have learned in their courses. Students are supervised by the program coordinator in their related field. Internships may be in advertising, journalism, public relations or telecommunications.

SOCIOLOGY

SOC-110
3.00
Introduction to Sociology
This course is a concise study of human behavior from the perspective of sociologists. It will examine the ways in which social interaction and social processes comprise our sociological imagination. The course will also explore the ways that society, culture, status, role, class, gender, age, race, and ethnicity affect human interaction and structures.

SOC-115
3.00
Social Problems
This course is an examination of social phenomena that have been defined as social problems in contemporary society. The course provides an understanding of some of the causes, effects and proposed solutions to these defined problems based upon the latest research.

SOC-120
3.00
Marriage and Family
This course is a study of personal relationships and how they are developed and maintained from courtship through family living.

SOC-130
3.00
Introduction to Gerontology
This course will identify and trace the history and development of major social policies and programs that affect older persons, especially in the area of health care. The course will take a broad view and examine the physical aging process as it relates to psychological and sociological age changes. The course will provide a broad background for those working with older adults.

SOC-140
3.00
Human Behavior in the Social Environment
The basic knowledge and conceptual perspectives for understanding individuals, families, groups, communities, organizations, and cultures will be studied. The course will focus on the interactions between and among human biological, social, psychological, and cultural systems as they affect and are affected by human behavior.

SOC-150
3.00
Introduction to Human Services
A survey is made of the historical development and philosophy of the social service in today's society. Emphasis is placed on the programs and agencies available in Iowa with their services, resources and methods of delivery.

SOC-200
3.00
Minority Group Relations
This course examines majority-minority group relations from a sociological perspective focusing primarily on race and ethnic relations, but also the intersecting identities of gender, social class, and other oppressed groups in American society. Students will learn historical perspectives of these selected majority-minority groups and the cultural consequences of privilege, oppression, and social inequality.

SOC-949
1.00
Special Topics
This offering provides an in-depth study of a special topic of general interest.

SPEECH

SPC-101
3.00
Fundamentals of Oral Communication
This course is designed to develop the basic skills of communication through theory and practice. Emphasis is placed on common communication fundamentals, interpersonal and group communication, and basic public speaking.

SPC-112
3.00
Public Speaking
This course is designed to develop the basic skills of speech communication by studying the process from topic selection through delivery. Emphasis is placed on the preparation and delivery of presentations.
Prerequisite(s): C or better in ENG-105

SPC-122
3.00
Interpersonal Communication
Interpersonal communication is the study of one-on-one communication in a variety of settings. The study of this primarily dyadic form of communication will focus on the workplace, family, friends, and romantic partners. Verbal and nonverbal communication, listening and conflict management will also be addressed.

SPC-132
3.00
Group Communication
Group communication offers practical, applicable exercises to improve listening skill, leadership, and open-mindedness to other points of view. Considered by former students as a most valuable "life course", students will learn techniques to improve relationships, to manage conflict, to solve problems and to reach consensus. There are no public speeches given, but a significant portion of the class is spent in small-group activities and discussion.

SPC-140
3.00
Oral Interpretation
Oral Interpretation is a perfect fit for anyone who wants to improve confidence in public speaking as well as those going into fields which require performance presentations-broadcasting, teaching, acting, advertising, coaching, public relations, etc. Oral Interpretation provides experience in the vocal performance of children's literature, poetry, prose, and drama-for the purpose of making such forms come alive for a listening audience. The class begins with attention on vocal techniques and daily group exercises in preparation for solo work later in the semester. Oral Interpretation also includes a literary analysis component which ties authors' intentions to the choices performers make in presenting the material.

WELDING

WEL-102
2.00
Welding Project
This course will cover; layout tools, operating sheet metal equipment, and welding. The students will use these skills to do the fabrication of a project. Making jigs, template development and the use of CNC plasma cutting are also addressed

WEL-110
2.00
Welding Blueprint Reading
Students will learn the symbol representation of the welding trades. They will learn to communicate symbolically using standard industry representation.

WEL-122
2.00
Beginning Welding
The Beginning Welding course offers students instruction in the flat, horizontal, and vertical down welding position. Emphasis is on safety and Shielded metal arc Welding, Gas Metal Arc Welding, Oxy-Acetylene Cutting, Welding, and Braze Welding.

WEL-170
2.00
Shielded Metal Arc Welding
This course is designed to give students proficiency in theory and operations of Shielded Metal Arc Welding equipment. Emphasis is on safety and welding in the flat and horizontal positions.

WEL-171
2.00
Advanced Shielded Metal Arc Welding
This course is designed to give students proficiency in theory and operations of Shielded Metal Arc Welding equipment. Emphasis is on safety and welding in the vertical and overhead positions.

WEL-178
2.00
Advanced Gas Metal Arc Welding
This course is designed to give students proficiency in theory and operations of gas metal arc welding equipment. Emphasis is on safety and welding in the vertical and overhead positions. Welding four basic joints in flat position using FCAW on carbon steel.

WEL-181
2.00
Gas Metal Arc Welding
This course is designed to give students proficiency in theory and operations of gas metal arc welding equipment. Emphasis is on safety and welding in the flat and horizontal positions.

WEL-190
2.00
Gas Tungsten Arc Welding
This course is designed to give students proficiency in theory and operation of Gas Tungsten Arc Welding equipment. Emphasis is on safety, and welding in the flat and horizontal position.

WEL-196
2.00
Advanced Gas Tungsten Arc Welding
This course is designed to give students advanced theory and skills in gas tungsten arc welding. Emphasis is on safety, and welding in the vertical and overhead positions.

WEL-213
2.00
Fabrication, Layout, Estimating & Repair
This course will cover aspect of measurement and geometry of circles, squares and triangles. It also covers calculation of bends by braking, rolling, and welding 90° angles and 360° circles. The students will do the calculations for the fabrication of projects.

WEL-214
2.00
Advanced Fabrication
This course will cover: the billing of materials, blueprint layout techniques, layout tools, operating sheet metal equipment, and welding. The students will use these skills to do the fabrication of more complex projects.

WEL-299
2.00
Pre-Pipe Welding
This course is designed to give students advanced theory and Shielded Metal Arc Welding and Gas Tungsten Arc Welding in the vertical and overhead positions, pipe 1F and 2F.

WEL-301
2.00
Pipe Welding
This is an advanced welding course designed to give students theory and application of pipe welding. Welding processes used will be Shielded Metal Arc Welding and Gas Tungsten arc welding. Students will welding carbon steel and stainless steel pipe joints.

WEL-340
2.00
Maintenance Welding
Students will learn how to utilize their welding skills to repair and build projects as required by factory maintenance personnel.

WEL-710
3.00
Robotic Welding
This course will give students experience utilizing the same robots and software that are used in industry. Integration of robotic automation will teach design and manufacturing concepts using basic operations of welding robots.

WEL-949
1.00
Spec Top: Gma Sma Oxy Welding
This course, usually offered on a limited basis only, provides an in-depth study on a topic of general interest pertaining to this department.

APPENDIX

Associate of Arts Degree Sheet
Associate of Science Degree Sheet
Associate of Professional Studies Degree Sheet
Placement Chart
General Education Course List
Health Sciences Core Program Standards
Credit for Prior Learning Course List

Graduation Requirements:
Successfully complete 60 hours with a 2.00 GPA (at least 15 semester hours taken at Iowa Central), and pay non-refundable $25 graduation fee.

Transfer Students:
Are your transfer courses on the Iowa Central transcript? If not, see Student Records.

ASSOCIATE OF ARTS DEGREE

EFFECTIVE FALL 2017
Approved 08/22/14

I. COMMUNICATION: ENGLISH/SPEECH
9 Hours Required

- ☐ ENG 105 Composition I (3)
- ☐ ENG 106 Composition II (3)
- ☐ SPC 112 Public Speaking (3)

***These credits can only be used for Category V**
SPC 122 Interpersonal Communication (3)*
SPC 132 Group Communication (3)*

II. MATH AND SCIENCE
8 Hours Required
[one course from each of the following areas]

Math:
- ☐ MAT 111 Math for Liberal Arts (4)
- ☐ MAT 120 College Algebra (3)
- ☐ MAT 127 College Algebra and Trigonometry (5)
- ☐ MAT 130 Trigonometry (3)
- ☐ MAT 140 Finite Math (3)
- ☐ MAT 156 Statistics (3)
- ☐ MAT 157 Statistics (4)
- ☐ MAT 158 Statistics II (3)
- ☐ MAT 159 Statistics Laboratory (1)
- ☐ MAT 165 Business Calculus (3)
- ☐ MAT 210 Calculus I (4)

Science:
- ☐ BIO 102 Introductory Biology (3)
- ☐ BIO 103 Introductory Biology Lab (1)
- ☐ BIO 112 General Biology I (4)
- ☐ BIO 113 General Biology II (4)
- ☐ BIO 168 Human Anatomy & Physiology I (4)
- ☐ BIO 173 Human Anatomy & Physiology II (4)
- ☐ CHM 110 Introduction to Chemistry (3)
- ☐ CHM 111 Introduction to Chemistry Lab (1)
- ☐ CHM 165 General Chemistry I (4)
- ☐ CHM 175 General Chemistry II (4)
- ☐ ENV 111 Environmental Science (4)
- ☐ PHS 120 Exploring Physical Science (4)
- ☐ PHS 125 Physical Science (4)
- ☐ PHY 162 College Physics I (4)
- ☐ PHY 212 Classical Physics I (5)

III. SOCIAL SCIENCE
9 Hours Required
[one course from at least two of the following three areas]

Human Relations:
- ☐ ANT 105 Cultural Anthropology (3)
- ☐ PSY 111 Introduction to Psychology (3)
- ☐ PSY 121 Developmental Psychology (3)
- ☐ PSY 251 Social Psychology (3)
- ☐ SOC 110 Introduction to Sociology (3)
- ☐ SOC 115 Social Problems (3)
- ☐ SOC 120 Marriage and Family (3)
- ☐ SOC 200 Minority Group Relations (3)

Civic Responsibility:
- ☐ GEO 121 World Regional Geography (3)
- ☐ ECN 120 Principles of Macroeconomics (3)
- ☐ ECN 130 Principles of Microeconomics (3)
- ☐ POL 111 American National Government (3)
- ☐ POL 112 American State and Local Government (3)
- ☐ POL 121 International Relations (3)

History:
- ☐ HIS 112 Western Civ: Ancient to Early Modern (4)
- ☐ HIS 113 Western Civ: Early Modern to Present (4)
- ☐ HIS 151 U.S. History to 1877 (3)
- ☐ HIS 152 U.S. History Since 1877 (3)

IV. HUMANITIES
9 Hours Required
[one course from at least two of the following four areas]

Aesthetic Perspective:
- ☐ ART 101 Art Appreciation (3)
- ☐ ART 133 Drawing (3)
- ☐ ART 151 Design I (3)
- ☐ ART 203 Art History I (3)
- ☐ ART 204 Art History II (3)
- ☐ DRA 101 Introduction to Theater (3)
- ☐ DRA 130 Acting I (3)
- ☐ ENG 221 Creative Writing (3)
- ☐ HUM 113 Exploring the Humanities (3)
- ☐ LIT 101 Introduction to Literature (3)
- ☐ LIT 114 American Literature (3)
- ☐ LIT 155 Modern World Fiction (3)
- ☐ MUS 104 Exploring Music (3)
- ☐ SPC 140 Oral Interpretation (3)

Ethical/Religious Perspective:
- ☐ HUM 185 Technology and Social Change (3)
- ☐ PHI 101 Introduction to Philosophy (3)
- ☐ PHI 145 Introduction to Ethical Conflicts (3)
- ☐ REL 105 Introduction to Religion (3)

Cultural Studies:
- ☐ CLS 130 African Cultures (3)
- ☐ CLS 141 Middle Eastern History and Culture (3)
- ☐ CLS 150 Latin American History and Culture (3)
- ☐ CLS 165 Understanding Culture: Modern Japan (3)
- ☐ CLS 167 Understanding Culture: Modern China (3)
- ☐ CLS 170 Russian History and Culture (3)
- ☐ CLS 181 American Diversity (3)
- ☐ CLS 210 Cultures in Transition (3)

Modern Language:
- ☐ ASL 131 American Sign Language I (3)
- ☐ ASL 161 American Sign Language II (3)
- ☐ FLC 141/142 Elementary Chinese I/II (4)
- ☐ FLF 141/142 Elementary French I/II (4)
- ☐ FLG 141/142 Elementary German I/II (4)
- ☐ FLG 241/242 Intermediate German I/II (4)
- ☐ FLS 141/142 Elementary Spanish I/II (4)
- ☐ FLS 241/242 Intermediate Spanish I/II (4)
- ☐ FLS 271/272 Advanced Spanish I/II (4)

V. DISTRIBUTED REQUIREMENTS
5 additional hours required from categories I-IV

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VI. INSTITUTIONAL REQUIREMENT
1 Hour Required

- ☐ SDV 107 Health Science College Experience (1)
- ☐ SDV 108 The College Experience (1)
- ☐ SDV 116 Strategies for Online Success (1)
- ☐ SDV 118 The Online Experience (3)

VII. COMPUTER LITERACY
3 Hours Required

- ☐ CSC 110 Introduction to Computers (3)
- ☐ CIS 162 C++ (4)
- ☐ EDU 255 Technology in the Classroom (3)
- ☐ NET 110 Microcomputer Fundamentals (3)

VIII. ELECTIVES
16 Hours Required
[16 hours may be selected from Arts & Science courses or 16 hours of vocational courses may be used]
ELECTIVE COURSE CHOICES ON REVERSE

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Developmental courses that DO NOT apply toward 60 hours to graduate:

	Course	ACT	ALEKS	ACCUPLACER
☐	ENG 025 (4)	0-13		1-2
☐	RDG 048 (4)	0-13		<43
☐	RDG 010 (1)	14-17		44-65
☐	MAT 045 (4)		0-13	
☐	MAT 063 (4)		14-29	
☐	Retest			
☐	No Developmental Courses Required			

Graduation Requirements:
Successfully complete 60 hours with a 2.00 GPA (at least 15 semester hours taken at Iowa Central), and pay non-refundable $25 graduation fee.

Transfer Students:
Are your transfer courses on the Iowa Central transcript? If not, see Student Records.

ASSOCIATE OF SCIENCE DEGREE

IOWA CENTRAL COMMUNITY COLLEGE

EFFECTIVE FALL 2017
Approved 02/11/14

I. COMMUNICATION:ENGLISH/SPEECH
9 Hours Required

- ☐ ENG 105 Composition I (3)
- ☐ ENG 106 Composition II (3)
- ☐ SPC 112 Public Speaking (3)

***These credits can only be used for Category V**
SPC 122 Interpersonal Communication (3)*
SPC 132 Group Communication (3)*

II. MATH AND SCIENCE
20 Hours Required
[one course from at least each of the following areas]

Math:
- ☐ MAT 120 College Algebra (3)
- ☐ MAT 127 College Algebra and Trigonometry (5)
- ☐ MAT 130 Trigonometry (3)
- ☐ MAT 140 Finite Math (3)
- ☐ MAT 156 Statistics (3)
- ☐ MAT 157 Statistics (4)
- ☐ MAT 158 Statistics II (3)
- ☐ MAT 159 Statistics Laboratory (1)
- ☐ MAT 165 Business Calculus (3)
- ☐ MAT 210 Calculus I (4)
- ☐ MAT 216 Calculus II (4)
- ☐ MAT 219 Calculus III (4)
- ☐ MAT 226 Differential Equations with Laplace (3)

Science:
- ☐ BIO 112 General Biology I (4)
- ☐ BIO 113 General Biology II (4)
- ☐ BIO 151 Nutrition (3)
- ☐ BIO 168 Human Anatomy & Physiology I (4)
- ☐ BIO 173 Human Anatomy & Physiology II (4)
- ☐ BIO 186 Microbiology (4)
- ☐ CHM 165 General Chemistry I (4)
- ☐ CHM 175 General Chemistry II (4)
- ☐ CHM 261 Organic Chemistry I (4)
- ☐ CHM 271 Organic Chemistry II (4)
- ☐ PHY 162 College Physics I (4)
- ☐ PHY 172 College Physics II (4)
- ☐ PHY 212 Classical Physics I (5)
- ☐ PHY 222 Classical Physics II (5)

III. SOCIAL SCIENCE
6 Hours Required
[one course from at least two of the following three areas]

Human Relations:
- ☐ ANT 105 Cultural Anthropology (3)
- ☐ PSY 111 Introduction to Psychology (3)
- ☐ PSY 121 Developmental Psychology (3)
- ☐ PSY 251 Social Psychology (3)
- ☐ SOC 110 Introduction to Sociology (3)
- ☐ SOC 115 Social Problems (3)
- ☐ SOC 120 Marriage and Family (3)
- ☐ SOC 200 Minority Group Relations (3)

Civic Responsibility:
- ☐ GEO 121 World Regional Geography (3)
- ☐ ECN 120 Principles of Macroeconomics (3)
- ☐ ECN 130 Principles of Microeconomics (3)
- ☐ POL 111 American National Government (3)
- ☐ POL 112 American State and Local Government (3)
- ☐ POL 121 International Relations (3)

History:
- ☐ HIS 112 Western Civ: Ancient to Early Modern (4)
- ☐ HIS 113 Western Civ: Early Modern to Present (4)
- ☐ HIS 151 U.S. History to 1877 (3)
- ☐ HIS 152 U.S. History Since 1877 (3)

IV. HUMANITIES
3 Hours Required
[one course from one of the following four areas]

Aesthetic Perspective:
- ☐ ART 101 Art Appreciation (3)
- ☐ ART 133 Drawing (3)
- ☐ ART 151 Design I (3)
- ☐ ART 203 Art History I (3)
- ☐ ART 204 Art History II (3)
- ☐ DRA 101 Introduction to Theater (3)
- ☐ DRA 130 Acting I (3)
- ☐ ENG 221 Creative Writing (3)
- ☐ HUM 113 Exploring the Humanities (3)
- ☐ LIT 101 Introduction to Literature (3)
- ☐ LIT 114 American Literature (3)
- ☐ LIT 155 Modern World Fiction (3)
- ☐ MUS 104 Exploring Music (3)
- ☐ SPC 140 Oral Interpretation (3)

Ethical/Religious Perspective:
- ☐ HUM 185 Technology and Social Change (3)
- ☐ PHI 101 Introduction to Philosophy (3)
- ☐ PHI 145 Introduction to Ethical Conflicts (3)
- ☐ REL 105 Introduction to Religion (3)

Cultural Studies:
- ☐ CLS 130 African Cultures (3)
- ☐ CLS 141 Middle Eastern History and Culture (3)
- ☐ CLS 150 Latin American History and Culture (3)
- ☐ CLS 165 Understanding Culture: Modern Japan (3)
- ☐ CLS 167 Understanding Culture: Modern China (3)
- ☐ CLS 170 Russian History and Culture (3)
- ☐ CLS 181 American Diversity (3)
- ☐ CLS 210 Cultures in Transition (3)

Modern Language:
- ☐ ASL 131 American Sign Language I (3)
- ☐ ASL 161 American Sign Language II (3)
- ☐ FLC 141/142 Elementary Chinese I/II (4)
- ☐ FLF 141/142 Elementary French I/II (4)
- ☐ FLG 141/142 Elementary German I/II (4)
- ☐ FLG 241/242 Intermediate German I/II (4)
- ☐ FLS 141/142 Elementary Spanish I/II (4)
- ☐ FLS 241/242 Intermediate Spanish I/II (4)
- ☐ FLS 271/272 Advanced Spanish I/II (4)

V. DISTRIBUTED REQUIREMENTS
2 additional hours required from categories I-IV

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VI. INSTITUTIONAL REQUIREMENT
1 Hour Required

- ☐ SDV 107 Health Science College Experience (1)
- ☐ SDV 108 The College Experience (1)
- ☐ SDV 116 Strategies for Online Success (1)
- ☐ SDV 118 The Online Experience (3)

VII. COMPUTER LITERACY
3 Hours Required

- ☐ CSC 110 Introduction to Computers (3)
- ☐ CIS 162 C++ (4)
- ☐ EDU 255 Technology in the Classroom (3)
- ☐ NET 110 Microcomputer Fundamentals (3)

VIII. ELECTIVES
16 Hours Required
[16 hours may be selected from Arts & Science courses or 16 hours of vocational courses may be used]
ELECTIVE COURSE CHOICES ON REVERSE

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Developmental courses that DO NOT apply toward 60 hours to graduate:

	Course	ACT	ALEKS	ACCUPLACER
☐	ENG 025 (4)	0-13		1-2
☐	RDG 048 (4)	0-13		<43
☐	RDG 010 (1)	14-17		44-65
☐	MAT 045 (4)		0-13	
☐	MAT 063 (4)		14-29	
☐	Retest			
☐	No Developmental Courses Required			

Graduation Requirements:
Successfully complete program requirements with a 2.00 GPA (at least 15 semester hours taken at Iowa Central), and pay non-refundable $25 graduation fee.

Transfer Students:
Are your transfer courses on the Iowa Central transcript? If not, see Student Records.

ASSOCIATE OF PROFESSIONAL STUDIES DEGREE

[ACC.APS; BUS.APS; HSER.APS]
[HCAB.APS – 8 week online only]

EFFECTIVE FALL 2017
Approved 02/11/14

I. COMMUNICATION: ENGLISH/SPEECH
9 Hours Required

- ☐ ENG 105 Composition I (3)
- ☐ ENG 106 Composition II (3)
- ☐ SPC 112 Public Speaking (3)

***These credits can only be used for Category V**
SPC 122 Interpersonal Communication (3)*
SPC 132 Group Communication (3)*

II. MATH AND SCIENCE
6 Hours Required
[3 semester hours from each area]

Math:
- ☐ MAT 111 Math for Liberal Arts (4)
- ☐ MAT 120 College Algebra (3)
- ☐ MAT 127 College Algebra & Trigonometry (5)
- ☐ MAT 130 Trigonometry (3)
- ☐ MAT 140 Finite Math (3)
- ☐ MAT 156 Statistics (3)
- ☐ MAT 157 Statistics (4)
- ☐ MAT 158 Statistics II (3)
- ☐ MAT 159 Statistics Laboratory (1)
- ☐ MAT 165 Business Calculus (3)
- ☐ MAT 210 Calculus I (4)

Science:
- ☐ BIO 102 Introductory Biology (3)
- ☐ BIO 103 Introductory Biology Lab (1)
- ☐ BIO 112 General Biology I (4)
- ☐ BIO 113 General Biology II (4)
- ☐ BIO 168 Human Anatomy & Physiology I (4)
- ☐ BIO 173 Human Anatomy & Physiology II (4)
- ☐ CHM 110 Introduction to Chemistry (3)
- ☐ CHM 111 Introduction to Chemistry Lab (1)
- ☐ CHM 165 General Chemistry I (4)
- ☐ CHM 175 General Chemistry II (4)
- ☐ ENV 111 Environmental Science (4)
- ☐ PHS 120 Exploring Physical Science (4)
- ☐ PHS 125 Physical Science (4)
- ☐ PHY 162 College Physics I (4)
- ☐ PHY 212 Classical Physics I (5)

III. SOCIAL SCIENCE
3 Hours Required

Human Relations:
- ☐ ANT 105 Cultural Anthropology (3)
- ☐ PSY 111 Introduction to Psychology (3)
- ☐ PSY 121 Developmental Psychology (3)
- ☐ PSY 251 Social Psychology (3)
- ☐ SOC 110 Introduction to Sociology (3)
- ☐ SOC 115 Social Problems (3)
- ☐ SOC 120 Marriage and Family (3)
- ☐ SOC 200 Minority Group Relations (3)

Civic Responsibility:
- ☐ GEO 121 World Regional Geography (3)
- ☐ ECN 120 Principles of Macroeconomics (3)
- ☐ ECN 130 Principles of Microeconomics (3)
- ☐ POL 111 American National Government (3)
- ☐ POL 112 American State and Local Government (3)
- ☐ POL 121 International Relations (3)

History:
- ☐ HIS 112 Western Civ: Ancient to Early Modern (4)
- ☐ HIS 113 West Civ: Early Mod to Present (4)
- ☐ HIS 151 U.S. History to 1877 (3)
- ☐ HIS 152 U.S. History Since 1877 (3)

IV. HUMANITIES
3 Hours Required

Aesthetic Perspective:
- ☐ ART 101 Art Appreciation (3)
- ☐ ART 133 Drawing (3)
- ☐ ART 151 Design I (3)
- ☐ ART 203 Art History I (3)
- ☐ ART 204 Art History II (3)
- ☐ DRA 101 Introduction to Theater (3)
- ☐ DRA 130 Acting 1 (3)
- ☐ ENG 221 Creative Writing (3)
- ☐ HUM 113 Exploring the Humanities (3)
- ☐ LIT 101 Introduction to Literature (3)
- ☐ LIT 114 American Literature (3)
- ☐ LIT 155 Modern World Fiction (3)
- ☐ MUS 104 Exploring Music (3)
- ☐ SPC 140 Oral Interpretation (3)

Ethical/Religious Perspective:
- ☐ HUM 185 Technology & Social Change (3)
- ☐ PHI 101 Introduction to Philosophy (3)
- ☐ PHI 145 Introduction to Ethical Conflicts (3)
- ☐ REL 105 Introduction to Religion (3)

Cultural Studies:
- ☐ CLS 130 African Cultures (3)
- ☐ CLS 141 Middle Eastern History and Culture (3)
- ☐ CLS 150 Latin American History and Culture (3)
- ☐ CLS 165 Understanding Culture: Modern Japan (3)
- ☐ CLS 167 Understanding Culture: Modern China (3)
- ☐ CLS 170 Russian History and Culture (3)
- ☐ CLS 181 American Diversity (3)
- ☐ CLS 210 Cultures in Transition (3)

Modern Language:
- ☐ ASL 131 American Sign Language I (3)
- ☐ ASL 161 American Sign Language II (3)
- ☐ FLC 141/142 Elementary Chinese I/II (4)
- ☐ FLF 141/142 Elementary French I/II (4)
- ☐ FLG 141/142 Elementary German I/II (4)
- ☐ FLG 241/242 Intermediate German I/II (4)
- ☐ FLS 141/142 Elementary Spanish I/II (4)
- ☐ FLS 241/242 Intermediate Spanish I/II (4)
- ☐ FLS 271/272 Advanced Spanish I/II (4)

V. DISTRIBUTED REQUIREMENTS
9 additional hours required from categories I-IV

VI. INSTITUTIONAL REQUIREMENT
1 Hour Required

- ☐ SDV 107 Health Science College Experience (1)
- ☐ SDV 108 The College Experience (1)
- ☐ SDV 116 Strategies for Online Success (1)
- ☐ SDV 118 The Online Experience (3)

VII. COMPUTER LITERACY
3 Hours Required

- ☐ CSC 110 Introduction to Computers (3)
- ☐ CIS 162 C++ (4)
- ☐ EDU 255 Technology in the Classroom (3)
- ☐ NET 110 Microcomputer Fundamentals (3)

YOU MUST ALSO COMPLETE THE REQUIREMENTS FOR ONE OF THE APS-CAREER OPTION PROGRAMS LISTED: Accounting Associate, Business, Criminal Justice, Health Care Administration, Human Services

Developmental courses that DO NOT apply toward 60 hours to graduate:

	Course	ACT	ALEKS	ACCUPLACER
☐	ENG 025 (4)	0-13		1-2
☐	RDG 048 (4)	0-13		<43
☐	RDG 010 (1)	14-17		44-65
☐	MAT 045 (4)		0-13	
☐	MAT 063 (4)		14-29	

Non-Discrimination Statement
It is the policy of Iowa Central Community College not to discriminate on the basis of race, color, national origin, sex, disability, age (employment), sexual orientation, gender identity, creed, religion, and actual or potential parental, family or marital status in its programs, activities, or employment practices as required by the Iowa Code §§ 216.6 and 216.9, Titles VI and VII of the Civil Rights Act of 1964 (42 U.S.C. §§ 2000d and 2000e), the Equal Pay Act of 1973 (29 U.S.C. § 206, et seq.), Title IX (Educational Amendments, 20 U.S.C. §§ 1681 – 1688), Section 504 (Rehabilitation Act of 1973, 29 U.S.C. § 794), Age Discrimination Act of 1975 (34 CFR Part 110), and Title II of the Americans with Disabilities Act (42 U.S.C. § 12101, et seq.). If you have questions or complaints related to compliance with this policy, please contact Kim Whitmore, Director of Human Resources, phone number 515-574-1138, whitmore@iowacentral.edu; or the Director of the Office for Civil Rights, U.S. Department of Education, Citigroup Center, 500 W. Madison, Suite 1475, Chicago, IL 60661, phone number 312-730-1560, fax 312-730-1576. 9/2017

IOWA CENTRAL COMMUNITY COLLEGE

Mandatory Assessment And Placement Chart 2017-2018

Reading Placement Scores

Placement Test	SDV-112 Success Seminar		No Course Required
	RDG-048* Basic Reading	**RDG-010*** Reading I	
ACCUPLACER (Reading Comprehension)	< 43	44-65	≥ 66
COMPASS (Reading)	0-60	61-79	≥ 80
ACT (Reading)	0-13	14-17	≥ 18
IA Assessment (Reading) Fall of Jr. Year Midyear of Jr. Year Spring of Jr. Year	 < 246 < 248 < 250	 246-287 248-289 250-292	 ≥ 288 ≥ 290 ≥ 293
ASSET (Reading Skills)	< 35	35-39	≥ 40
SAT (Reading)	< 335	335-429	≥ 430

Writing Placement Scores

Placement Test	**ENG-025*** Basic Writing	**ENG-101** Elements of Writing	**ENG-105** Composition I
ACCUPLACER (WritePlacer)	0-2	3-4	≥ 5 OR 4 + ≥ 66 in ACCUPLACER Reading Comprehension
COMPASS (Writing)	0-37	38-64	65-100
ACT (English)	0-13	14-17	18-36
IA Assessment (Written Expression) Fall of Jr. Year Midyear of Jr. Year Spring of Jr. Year	 < 243 < 245 < 247	 243-290 245-292 247-295	 > 290 > 292 > 295
ASSET (Writing Skills)	23-34	35-39	40-54
SAT (Writing)	200-334	335-429	430-800
ACCUPLACER (Sentence Skills)	27-44	45-73	74-120

Reading and writing placement scores are valid for 3 years from the start the course you are placed in.

ALEKS scores are good for 18 months from the start of the course you are placed in.

Math Placement Scores

Placement Test	**MAT-045*** Fundamentals of Math	**MAT-063*** Elementary Algebra	**MAT-102** Intermediate Algebra **MAT-111** Math for Liberal Arts **MAT-117** Math for Elem. Teachers **MAT-140** Finite Math **MAT-157** Statistics	**MAT-120** College Algebra **MAT-127** College Algebra & Trig **MAT-130** Trigonometry **MAT-165** Business Calculus	**MAT-210** Calculus I
ALEKS	0-13	14-29	30-45	46-75	76-100

*denotes a developmental course that is non-transferable and does not count towards graduation

UPDATED MAY 2017

Approved General Education Courses - 2017-2018 College Year

Graduation Requirements: Successfully complete program requirements with a 2.00 GPA (at least 15 semester hours taken at Iowa Central for AAS and AAA), and pay non-refundable $25 graduation fee.

Successfully complete program requirements (at least 9 semester hours taken at Iowa Central for Diploma) and pay non-refundable $25 graduation fee.

Transfer Students: Are your transfer courses on the Iowa Central transcript? If not, see Student Records.

Approved General Education Courses
2017-2018 College Year
This approved course list may change for the following college year

Code:
AAS -- Associate of Applied Science
AAA -- Associate of Applied Arts
D -- Diploma

EFFECTIVE FALL 2017
Updated 09/12/17 Approved 09/12/17

I. ENGLISH/SPEECH COMMUNICATIONS (AAS,AAA,D)

- ☐ BUS 114 Workplace Communications (3)
- ☐ BUS 121 Business Communication (3)
- ☐ ENG 105 Composition I (3)
- ☐ ENG 106 Composition II (3)
- ☐ ENG 111 Technical Writing (3)
- ☐ SPC 122 Interpersonal Communication (3)
- ☐ SPC 112 Public Speaking (3)

II. MATHEMATICS/SCIENCE (AAS,AAA,D)

Mathematics:
- ☐ BUS 112 Business Math (3)
- ☐ ELE 250 Math for Electricians (3)
- ☐ HCM 266 Culinary Math (3)
- ☐ MAT 111 Math for Liberal Arts (4)
- ☐ MAT 120 College Algebra (3)
- ☐ MAT 127 College Algebra and Trigonometry (5)
- ☐ MAT 130 Trigonometry (3)
- ☐ MAT 140 Finite Math (3)
- ☐ MAT 150 Discrete Math (3)
- ☐ MAT 156 Statistics (3)
- ☐ MAT 157 Statistics (4)
- ☐ MAT 158 Statistics II (3)
- ☐ MAT 165 Business Calculus (3)
- ☐ MAT 210 Calculus (4)
- ☐ MAT 743 Technical Math (3)
- ☐ MAT 748 Technical Math II (3)

Science:
- ☐ BIO 102 Introductory Biology (3)
- ☐ BIO 103 Introductory Biology Lab (1)
- ☐ BIO 112 General Biology I (4)
- ☐ BIO 113 General Biology II (4)
- ☐ BIO 163 Essentials of Anatomy and Physiology (4)
- ☐ BIO 168 Human Anatomy and Physiology I (4)
- ☐ BIO 173 Human Anatomy and Physiology II (4)
- ☐ CHM 110 Introduction to Chemistry (3)
- ☐ CHM 111 Introduction to Chemistry Lab (1)
- ☐ CHM 165 General Chemistry I (4)
- ☐ CHM 175 General Chemistry II (4)
- ☐ ENV 111 Environmental Science (4)
- ☐ PHS 120 Exploring Physical Science (4)
- ☐ PHY 162 College Physics I (4)
- ☐ PHY 184 Applied Physics (4)
- ☐ PHY 212 Classical Physics I (5)

III. SOCIAL SCIENCE/HUMANITIES (AAS,AAA,D)

Social Science:
- ☐ ANT 105 Cultural Anthropology (3)
- ☐ BUS 161 Human Relations (3)
- ☐ ECN 120 Principles of Macroeconomics (3)
- ☐ ECN 130 Principles of Microeconomics (3)
- ☐ GEO 121 World Regional Geography (3)

Social Science cont.:
- ☐ HIS 151 U.S. History to 1877 (3)
- ☐ HIS 152 U.S. History Since 1877 (3)
- ☐ HIS 112 Western Civilization.: Ancient to Early Modern (4)
- ☐ HIS 113 Western Civilization.: Early Modern to Present (4)
- ☐ POL 111 American National Government (3)
- ☐ POL 112 American State and Local Government (3)
- ☐ POL 121 International Relations (3)
- ☐ PSY 111 Introduction to Psychology (3)
- ☐ PSY 112 Psychology of Human Relations (3)
- ☐ PSY 121 Developmental Psychology (3)
- ☐ PSY 251 Social Psychology (3)
- ☐ SOC 110 Introduction to Sociology (3)
- ☐ SOC 115 Social Problems (3)
- ☐ SOC 120 Marriage and Family (3)
- ☐ SOC 200 Minority Group Relations (3)

Humanities:
- ☐ AGC 201 American Agricultural History (3)
- ☐ ART 101 Art Appreciation (3)
- ☐ ART 133 Drawing (3)
- ☐ ART 151 Design I (3)
- ☐ ART 184 Photography (3)
- ☐ ART 203 Art History I (3)
- ☐ ART 204 Art History II (3)
- ☐ ASL 131 American Sign Language I (3)
- ☐ ASL 161 American Sign Language II (3)
- ☐ CLS 130 African Cultures (3)
- ☐ CLS 141 Middle Eastern History and Culture (3)
- ☐ CLS 150 Latin American History and Culture (3)
- ☐ CLS 165 Understanding Cultures: Modern Japan (3)
- ☐ CLS 167 Understanding Cultures: Modern China (3)
- ☐ CLS 170 Russian History and Culture (3)
- ☐ CLS 181 American Diversity (3)
- ☐ CLS 210 Cultures in Transition (3)
- ☐ DRA 101 Introduction to Theatre (3)
- ☐ DRA 130 Acting I (3)
- ☐ ENG 221 Creative Writing (3)
- ☐ FLC 141-142 Elementary Chinese I/II (4)
- ☐ FLF 141-142 Elementary French I/II (4)
- ☐ FLG 141-142 Elementary German I/II (4)
- ☐ FLG 241-242 Intermediate German I/II (4)
- ☐ FLS 141-142 Elementary Spanish I/II (4)
- ☐ FLS 241-242 Intermediate Spanish I/II (4)
- ☐ FLS 271-272 Advanced Spanish I/II (4)
- ☐ HUM 113 Exploring the Humanities (3)
- ☐ HUM 185 Technology and Social Change (3)
- ☐ LIT 101 Introduction to Literature (3)
- ☐ LIT 114 American Literature (3)
- ☐ LIT 155 Modern World Fiction (3)
- ☐ MUS 104 Exploring Music (3)
- ☐ PHI 145 Introduction to Ethical Conflicts (3)
- ☐ REL 105 Introduction to Religion (3)
- ☐ SPC 140 Oral Interpretation (3)

IV. OTHER (AAS,AAA)

Institutional Requirement:
- ☐ SDV 107 Health Science College Experience (1)
- ☐ SDV 108 The College Experience (1)
- ☐ SDV 116 Strategies for Online Success (1)
- ☐ SDV 118 The Online Experience (3)

Computer Literacy:
- ☐ CIS 162 C++ (4)
- ☐ CSC 110 Introduction to Computers (3)
- ☐ NET 110 Microcomputer Fundamentals (3)

Business:
- ☐ AGB 235 Introduction to Agriculture Markets (3)
- ☐ BUS 102 Introduction to Business (3)
- ☐ MKT 110 Principles of Marketing (3)
- ☐ ACC 142 Financial Accounting (3)

Award Types and Requirements

Associate of Applied Science (AAS) Degree: Awarded upon the completion of a state-approved CTE program intended to prepare students for entry-level technical occupations. It shall consist of between 60 and 86 semester credit hours. Of those, a minimum of 12 semester credit hours must be general education to include at least one course from each of the following areas: communications, social science or humanities, and science or mathematics. The technical core component shall constitute at least 50% of the program's credits.

Associate of Applied Arts (AAA) Degree: Awarded upon the completion of a state-approved CTE program intended to provide students with skills for employment in a specific field such as art, humanities, or graphics design. This degree consists of between 60 and 86 semester credit hours. Of those, a minimum of 12 semester credit hours must be general education to include at least one course from each of the following areas: communications, social science or humanities, and science or mathematics. The technical core component shall constitute at least 50% of the program's credits

Diploma: Awarded upon the completion of a state-approved CTE program that is a coherent sequence of courses consisting of 15 to 48 semester credit hours, including at least three semester credit hours of general education from any of the following areas: communications, social science or humanities, science or mathematics. A diploma may be a component (option) of, and apply toward, subsequent completion of an AAS or AAA degree.

Source: Iowa Department of Education Program Approval Guidelines. Issued May 2014
https://www.educateiowa.gov/documents/program-approval/2014/07/program-approval-guidelines-iowa-community-colleges

Core Performance Standards for all Health Sciences Programs

Iowa Community colleges have developed the following Core Performance Standards for all applicants to Health Care Career Programs. These standards are based upon required abilities that are compatible with effective performance in health care careers. Applicants unable to meet the Core Performance Standards are responsible for discussing the possibility of reasonable accommodations with the designated institutional office. Before final admission into a health career program, applicants are responsible for providing medical and other documentation related to any disability and the appropriate accommodations needed to meet the Core Performance Standards. These materials must be submitted in accordance with the institution's ADA Policy.

* The student is encouraged to meet with the Special Populations Coordinator and Health Science Dean.

Capability	Standard	Some Examples of Necessary Activities (Not all inclusive)
Cognitive-Perception	The ability to gather and interpret data and events, to think clearly and rationally, and to respond appropriately in routine and stressful situations.	• Identify changes in patient/client health status • Handle multiple priorities in stressful situations
Critical Thinking	Utilize critical thinking to analyze the problem and devise effective plans to address the problem.	• Identify cause-effect relationships in clinical situations • Develop plans of care as required
Interpersonal	Have interpersonal and collaborative abilities to interact appropriately with members of the healthcare team as well as individuals, families and groups. Demonstrate the ability to avoid barriers to positive interaction in relation to cultural and/or diversity differences.	• Establish rapport with patients/clients and members of the healthcare team • Demonstrate a high level of patience and respect • Respond to a variety of behaviors (anger, fear, hostility) in a calm manner • Nonjudgmental behavior
Communication	Utilize communication strategies in English to communicate health information accurately and with legal and regulatory guidelines, upholding the strictest standards of confidentiality.	• Read, understand, write and speak English competently • Communicate thoughts, ideas and action plans with clarity, using written, verbal and/or visual methods • Explain treatment procedures • Initiate health teaching • Document patient/client responses • Validate responses/messages with others
Technology Literacy	Demonstrate the ability to perform a variety of technological skills that are essential for providing safe patient care.	• Retrieve and document patient information using a variety of methods • Employ communication technologies to coordinate confidential patient care
Mobility	Ambulatory capability to sufficiently maintain a center of gravity when met with an opposing force as in lifting, supporting, and/or transferring a patient/client.	• The ability to propel wheelchairs, stretchers, etc. alone or with assistance as available
Motor Skills	Gross and fine motor abilities to provide safe and effective care and documentation.	• Position patients/clients • Reach, manipulate, and operate equipment, instruments and supplies • Electronic documentation/ keyboarding • Lift, carry, push and pull • Perform CPR
Hearing	Auditory ability to monitor and assess, or document health needs.	• Hears monitor alarms, emergency signals, ausculatory sounds, cries for help
Visual	Visual ability sufficient for observations and assessment necessary in patient/client care, accurate color discrimination.	• Observes patient/client responses • Discriminates color changes • Accurately reads measurement on patient client related equipment
Tactile	Tactile ability sufficient for physical assessment, inclusive of size, shape, temperature and texture.	• Performs palpation • Performs functions of physical examination and/or those related to therapeutic intervention
Activity Tolerance	The ability to tolerate lengthy periods of physical activity.	• Move quickly and/or continuously • Tolerate long periods of standing and/or sitting as required
Environmental	Ability to tolerate environmental stressors.	• Adapt to rotating shifts • Work with chemicals and detergents • Tolerate exposure to fumes and odors • Work in areas that are close and crowded • Work in areas of potential physical violence • Work with patients with communicable diseases or conditions

Credit for Prior Learning Course List

CC#	Course Title	Sem. Hrs	Requirements
ADM-105	Intro to Keyboarding	1	Obtain 35 words a minute on a 3-minute timed writing with 3 or fewer errors
ADM-108	Keyboarding Skills Development	1	Obtain 65 words a minute on a 5-minute timed writing with 5 or fewer errors
ADM-131	Office Calculators	1	Pass all three components of the advanced standing test in one sitting.
AGA-380	Integrated Pest Management	4	Present Department of Agriculture and Land Stewardship (IDALS) Pesticide Applicators License, Commercial or Private prior to taking Iowa Central's Advanced Standing Integrated Pest Management Test-Out exam. Must pass Test-Out exam with at least an 85%.
AUT-108	Introduction to Transportation	3	Pass all three tests, Hands-On, Performance and Safety with an 80%. At least 1 year of shop experience. Maximum of 2 attempts to pass Safety test. Students that successfully pass all 3 tests move into second semester of the program.
AVI-170	Flight Lab 1 Lesson 1-26	1.8	Hold Private Pilot License
AVI-211	Instrument Ground School	3	Have passed Commercial and Instrument
AVI-240	Flight Lab 2 Lessons 1-38	1.9	Hold Private Pilot License
AVI-241	Flight Lab 3 Lessons 38-64	1.7	Hold Commercial Instrument
AVI-300	Flight Instructor Ground School	3	Federal Aviation Administration written exam, Fundamentals of Instruction, Flight Ground Instructor
AVI-242	Flight Lab 4 Lessons 64-85	1.4	Hold Commercial Instrument
AVI-249	General Aviation Operations Management	3	Pass final written test
AVI-275	Aviation Regulations	2	Pass final written test
AVI-124	Maintenance for Pilots	2	Pass final written test
AVI-272	Flight Lab 6 Lessons 1-10	0.3	Obtain Multi Engine Rating
AVI-130	Private Pilot Ground School	3	Hold Private Pilot License
AVI-131	Private Pilot II	3	Hold Private Pilot License
AVI-273	Flight Lab 7 Lessons 11-15	0.2	Obtain Multi Engine 1 Rating
AVI-271	Flight Lab 5 Lessons 1-15	0.8	Obtain Federal Aviation Administration Certificate, Certified Flight Instructor
BUS-112	Business Mathematics	3	Complete written test with 80% accuracy
BUS-113	Workplace Readiness	1.5	At the discretion of the program coordinator when the Iowa Central non-credit course is equivalent on a non-credit transcript
CAD-101	Introduction to CAD	3	Pass exam
CAD-138	Virtual Modeling 1	2	Pass written test with 80% accuracy
CAD-155	Engineering Graphics 1	2	Pass exam
CAD-156	Engineering Graphics 2	3	Pass written test with 80% accuracy
CAD-157	Engineering Graphics 3	2	Pass written test with 80% accuracy
CAD-164	Solid Modeling I	2	Pass written test with 80% accuracy
CAD-166	Solid Modeling II	2	Pass exam

CC#	Course Title	Sem. Hrs	Requirements
CRJ-110 CRJ-133	Patrol Procedures Consitutional Criminal Procedure	3 3	Present a certificate of completion from the **State of Arkansas** 115 hour part-time Auxiliary Police Course for a total of 6 credit hours
CRJ-110 CRJ-133 CRJ-141 CRJ-152	Patrol Procedures Constitutional Criminal Procedure Criminal Investigation Defensive Tactics	3 3 3 3	Present a certificate of completion from a law enforcement academy endorced by the **California** Commission on Peace Officer Standards and Training for a total of 12 credit hours
CRJ-133 CRJ-152	Constitutional Criminal Procedure Defensive Tactics	3 3	Present Certificate of completion from a **State of California** Department of Corrections Training Academy for a total of 6 credit hours
CRJ-120 CRJ-152	Introduction to Corrections Defensive Tactics	3 3	Present a certificate of completion from the Corrections Coporation of America Pre-Service Orientation & Basic Training for a total of 6 credit hours
CRJ-110 CRJ-133 CRJ-141 CRJ-152	Patrol Procedures Constitutional Criminal Procedure Criminal Investigation Defensive Tactics	3 3 3 3	Present **State of Florida** Basic Police Recruit Training Certification for a total of 12 credit hours
CRJ-110 CRJ-133 CRJ-141 CRJ-152	Patrol Procedues Constitutional Criminal Procedure Criminal Investigation Defensive Tactics	3 3 3 3	Present **State of Illinois** Law Enforcement Training and Standards Board Certification for a total of 12 credit hours
CRJ-120 CRJ-152	Introduction to Corrections Defensive Tactics	3 3	Present **State of Iowa** Department of Corrections Certification for a total of 6 credit hours
CRJ-100 CRJ-110 CRJ-132 CRJ-133 CRJ-141 CRJ-152	Introduction to Criminal Justice Patrol Procedures Judicial Process Constitutional Criminal Procedure Criminal Investigation Defensive Tactics	3 3 3 3 3 3	Present **Iowa** Law Enforcement Academy Certification for a total of 18 credit hours
CRJ-100 CRJ-110 CRJ-133 CRJ-141 CRJ-152 CRJ-160	Introduction to Criminal Justice Patrol Procedures Constitutional Criminal Procedure Criminal Investigation Defensive Tactics Introduction to Forensic Investigation	3 3 3 3 3 3	Present **State of Maryland** Basic Police Academy Certification for a total of 18 credit hours
CRJ-110 CRJ-132 CRJ-133 CRJ-141 CRJ-152	Patrol Procedures Judicial Process Constitutional Criminal Procedure Criminal Investigation Defensive Tactics	3 3 3 3 3	Present a Certificate of Completion from the Eastern **Missouri** Law Enforcement Training Academy for a total of 15 credit hours
CRJ-110 CRJ-132 CRJ-133 CRJ-141 CRJ-152	Patrol Procedures Consitutional Law Consitutional Criminal Procedure Criminal Investigation Defensive Tactics	3 3 3 3 3	Present Certification of Police Academy Training sanctioned by the **State of Nebraska** Peace Officers Education and Training for a total of 15 credit hours
CRJ-100 CRJ-110 CRJ-133 CRJ-141 CRJ-152	Introduction to Criminal Justice Patrol Procedures Consitutional Criminal Procedure Criminal Investigation Defensive Tactics	3 3 3 3 3	Present **State of New Jersey** Basic Police Academy Certification for a total of 15 credit hours

CC#	Course Title	Sem. Hrs	Requirements
CRJ-110	Patrol Procedures	3	Present **State of Oregon** Department of Public Safety Standards and Training Certification for a total of 12 credit hours
CRJ-133	Consitutional Criminal Procedure	3	
CRJ-141	Criminal Investigation	3	
CRJ-152	Defensive Tactics	3	
CRJ-100	Introduction to Criminal Justice	3	Present **Commonwealth of Pennsylvania** Police Officers Education & Training Commission Certification for a total of 15 credit hours
CRJ-110	Patrol Procedures	3	
CRJ-133	Constitutional Criminal Procedure	3	
CRJ-141	Criminal Investigation	3	
CRJ-152	Defensive Tactics	3	
CRJ-120	Corrections	3	Present **State of Pennsylvania** Department of Corrections Training Academy Certification for a total of 3 credit hours
CRJ-110	Patrol Procedures	3	Present **State of Tennessee** Basic Training Academy Certification or State of Tennessee Basic Police Academy Certification for a total of 12 credit hours
CRJ-133	Constitutional Criminal Procedure	3	
CRJ-141	Criminal Investigation	3	
CRJ-152	Defensive Tactics	3	
CRJ-110	Patrol Procedures	3	Present a Certificate of Completion from a United States Department of Defense Civilian Police Training for a total of 12 credit hours
CRJ-133	Constitutional Criminal Procedure	3	
CRJ-141	Criminal Investigation	3	
CRJ-152	Defensive Tactics	3	
CRJ-110	Patrol Procedures	3	Present **State of Utah** Certificate of Completion from a Law Enforcement Academy endorsed by the Utah Department of Public Safety for a total of 9 credits.
CRJ-141	Criminal Investigation	3	
CRJ-152	Defensive Tactics	3	
CRJ-100	Introduction to Criminal Justice	3	Present **Virginia** State Police Academy Certification or Virginia State Police Department Certification for a total of 18 credit hours
CRJ-110	Patrol Procedures	3	
CRJ-133	Constitutional Criminal Procedure	3	
CRJ-141	Criminal Investigation	3	
CRJ-152	Defensive Tactics	3	
CRJ-160	Intro to Forensic Investigation	3	
CRJ-110	Patrol Procedures	3	Present a certificate of completion from a law enforcement academy endorsed by the **Washington** State Criminal Justice Training Commission for a total of 18 credit hours
CRJ-132	Constitutional Law	3	
CRJ-133	Consitutional Criminal Procedure	3	
CRJ-141	Criminal Investigation	3	
CRJ-152	Defensive Tactics	3	
DSL-835	Commercial Drivers License	2	Present Commercial Drivers License ID Card
EGT-400	Intro to Engineering Design	3	Pass written exam
EGT-410	Principles of Engineering	3	Pass written exam
ELE-104	Print, Reading, & Estimating	1	Pass written exam
ELE-111	AC Fundamentals	3	Pass written exam
ELE-114	DC Fundamentals	3	Pass written exam
ELE-124	Tools/Adapters/In	2	Pass written exam
ELE-149	UL & Electrical Safety	2	Pass written exam
ELE-155	National Electrical Code 1	2	Pass written exam
ELE-156	National Electrical Code 2	2	Pass written exam
ELE-158	National Electrical Code 3	2	Pass written exam
ELE-164	Residential Wiring	2	Pass written exam
ELE-167	Ind. Electrical Systems	3	Pass written exam
ELE-170	Power Distribution	2	Pass written exam

CC#	Course Title	Sem. Hrs	Requirements
ELE-187	Advanced Industrial Electical Systems	4	Pass written exam
ELE-195	Motor Controls	3	Pass written exam
ELE-198	Solid State Motor Controls	2	Pass written exam
ELE-204	Programmable Logic Theory	2	Pass written exam
ELE-205	Advanced Programmable Controllers	2	Pass written exam
ELE-206	Networking PLC's	2	Pass written exam
ELE-221	Instrumentation & Control	3	Pass written exam
ELE-932	Internship	4	Must meet previous experience criteria per Coordinator
ELE-932	Internship	4	Present Journeyman's/Union Card: Proof of Apprenticeship
ELE-104	Print, Reading, & Estimating	1	Individuals with a valid state electrical license: which includes Electrical Journeyman's License and/or Electrical Masters License will receive advanced standing credit (with the program coordinators approval) for one or more of the listed courses.
ELE-111	AC Fundamentals	3	
ELE-114	DC Fundamentals	3	
ELE-124	Tools/Adapters/Instrument.	2	
ELE-149	UL & Electrical Safety	2	
ELE-155	National Electrical Code 1	2	
ELE-156	National Electrical Code 2	2	
ELE-158	National Electrical Code 3	2	
ELE-164	Residential Wiring	2	
ELE-170	Power Distribution	2	
ELE-932	Internship	4	
EMS-760	NCS Paramedic 1	43	Submit an official non-credit transcript to Student Records showing proof of Paramedic Specialist (PS) or Paramedic and present a current certification card for PS or Paramedic to the EMS Coordinator
EMS-761	NCS Paramedic 2		
EMS-762	NCS-Paramedic 3		
EMS-763	NCS-Paramedic 4		
EMS-764	NCS-Paramedic 5		
EMS-810	Advanced Cardiac Life Support - ACLS		Submit an official non-credit transcript to Student Records showing proof of completion of ACLS, PALS, or PHTLS and present a current course completion card for ACLS, PALS, or PHTLS to the EMS Coordinator.
EMS-815	Pediatric Advanced Life Support - PALS		
EMS-820	Prehospital Trauma Life Support - PHTLS		
FIR-144	Fundamentals of Fire Fighting	4.5	Present original certificate(s) of Nationally Certified Fire Fighter I with National Certification number from either International Fire Service Accreditation Congress or from National Board on Fire Science Professional Qualifications
HCM-108	Safety and Sanitation	3	Pass ServSafe exam
HCM-143	Food Preparation Lecture	3	Pass written exam
HCM-144	Food Preparation Lab	3	Pass cooking and knife skills exam
HCM-148	Food Fundamentals	3	Pass written exam
HSC-113	Medical Terminology	2	Pass final written exam
HSC-172	Nurse Aide	3	Submit an official non-credit transcript from an accredited insitution to Student Records showing proof of completion of the 75 hours Nurse Aide course, along with successful completion of state and written skills testing
IND-110	CPR, First Aid, and Safety	1	Present certification cards for OSHA and CPR/First Aid
IND-116	Pneumatic & Hydraulic Systems	2	At the discretion of the program coordinator when the Iowa Central non-credit course is equivalent on a non-credit transcript

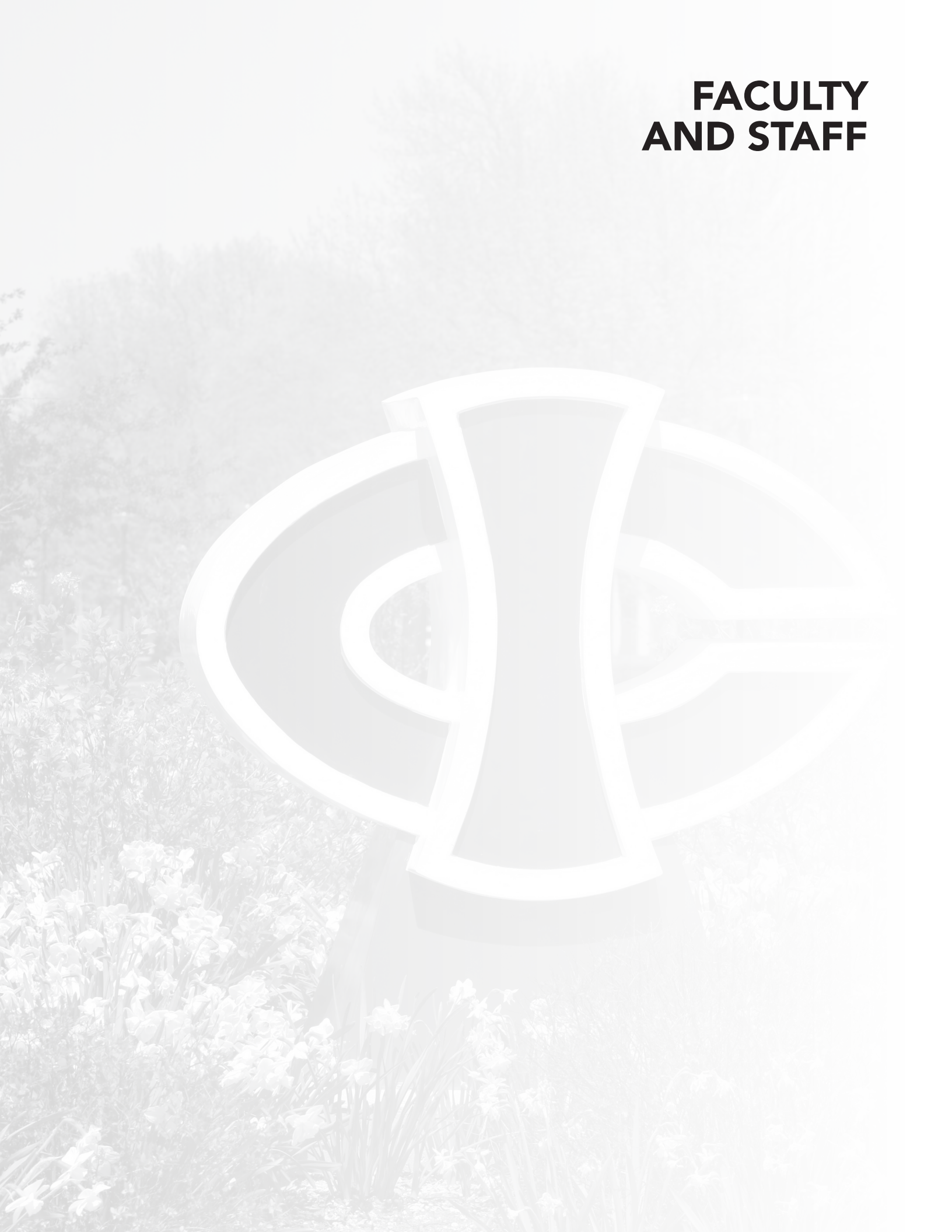
Credit for Prior Learning Course List (cont.)

IND-126	Precision Measurements Lab	1	Pass written test with 80% accuracy or at the discretion of the program coordinator when the Iowa Central non-credit course is equivalent on a non-credit transcript
IND-127	Shop Operations	1	Pass written test with 80% accuracy and pass lab exercise with 80% proficiency or at the discretion of the program coordinator when the Iowa Central non-credit course is equivalent on a non-credit transcript
IND-128	Blueprint Reading	1	Pass written test with 80% accuracy or at the discretion of the program coordinator when the Iowa Central non-credit course is equivalent on a non-credit transcript
IND-182	Boiler Maintenance Fundamentals	2	Obtain Boiler Operator II Certification from the Iowa Association of Custodians and Assistants
IND-184	Mechanical Processes	2	Pass exam or at the discretion of the program coordinator when the Iowa Central non-credit course is equivalent on a non-credit transcript
IND-201	OSHA 10-Hour Training - General	1	At time of registration, you must choose either General Industry or Construction Industry track based on your program.
IND-203	OSHA 10-Hour Training - General	1	
IND-205	OSHA 10-Hour Training - Construction	1	
IND-207	OSHA 10-Hour Training - Construction	1	
MAT-743	Technical Mathematics	3	Pass written test with 80% accuracy
MFG-256	Intro. to Lathe Operations	2	Pass exam
MFG-266	Intro. to Mill Operations	2	Pass exam
MFG-932	Internship	4	Present Journeyman's/Union Card: Proof of Apprenticeship
MGT-260	Introduction to Business Logistics	3	At the discretion of the program coordinator when the Iowa Central non-credit course is equivalent on a non-credit transcript
MGT-261	Principles of Transportation Management	3	At the discretion of the program coordinator when the Iowa Central non-credit course is equivalent on a non-credit transcript
MGT-262	Principles of Purchasing and Logistics	3	At the discretion of the program coordinator when the Iowa Central non-credit course is equivalent on a non-credit transcript
MGT-263	Principles Distribution/ Warehouse Mgt	3	At the discretion of the program coordinator when the Iowa Central non-credit course is equivalent on a non-credit transcript
MGT-264	Demand Planning and Inventory Management	3	At the discretion of the program coordinator when the Iowa Central non-credit course is equivalent on a non-credit transcript
MLT-111	Fundamentals of Lab Science	4	Pass final written exam and lab competency exam

Certification will be considered if the test was taken within a three year time period prior to the first time enrolling for the CNT Program at Iowa Central

NET-152	Adv. Networking Technology	3	Microsoft Certified Systems Engineer (MCSE) is 7 tests.
NET-343	Windows Directory Services	3	
NET-191	Network Cabling	2	INTRO 640-821 is 1 test.
NET-211	Cisco Networking	2	
NET-222	Cisco Routers	3	
NET-232	Cisco Switches	3	ICND 640-811 is 1 test.
NET-242	Cisco Wide Area Networks (WAN)	3	
NET-314	Microsoft Windows Server	4	Microsoft Certified Systems Administrator (MCSA) is 4 tests.
NET-483	Network + Certification	3	N+ is 1 test.
NET-612	Fundamentals of Network Security	3	Provide Security + Certification.
NET-790	PC Support I	3	Provide A+ Certification.
NET-791	PC Support II	3	Provide A+ Certification.
RAD-122	Radiographic Procedures 1	4	Pass final written exam and lab competency exam
RAD-142	Radiographic Procedures 2	4	Pass final written exam and lab competency exam
RAD-149	Cross Sectional Anatomy	1	Pass final written exam
RAD-163	Radiographic Procedures 3	2.5	Pass final written exam and lab competency exam
RAD-320	Imaging 1	2	Pass final written exam
RAD-365	Imaging 2	2	Pass final written exam
RAD-430	Radiographic Physics	3	Pass final written exam
RAD-740	Radiologic Pathology	2	Pass final written exam
RAD-850	Radiobiology	3	Pass final written exam
RAD-895	Quality Assurance	2	Pass final written exam
WEL-110	Welding Blueprint Reading	2	Pass exam or at the discretion of the program coordinator when the Iowa Central non-credit course is equivalent on a non-credit transcript
WEL-122	Beginning Welding	2	Pass exam or at the discretion of the program coordinator when the Iowa Central non-credit course is equivalent on a non-credit transcript
WEL-170	Shielded Metal Arc Welding	2	Pass exam or at the discretion of the program coordinator when the Iowa Central non-credit course is equivalent on a non-credit transcript
WEL-171	Adv. Shielded Metal Arc Welding	2	Pass exam
WEL-178	Adv. Gas Metal Arc Welding	2	Pass exam
WEL-181	Gas Metal Arc Welding	2	Pass exam or at the discretion of the program coordinator when the Iowa Central non-credit course is equivalent on a non-credit transcript
WEL-190	Gas Tungsten Arc Welding	2	Pass exam or at the discretion of the program coordinator when the Iowa Central non-credit course is equivalent on a non-credit transcript
WEL-196	Adv. Gas Tungsten Arc Welding	2	Pass exam
WEL-213	Fabrication, Layout, Estimating & Repair	2	Pass exam or at the discretion of the program coordinator when the Iowa Central non-credit course is equivalent on a non-credit transcript
WEL-301	Pipe Welding	2	Pass exam
20 Classes	Various	Various	Must have completed the Electrolux Apprenticeship - contact Student Records for a complete list.

FACULTY AND STAFF



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B.B.A., Pittsburg State University
M.S., University of Kansas
Ed.D., University of Arkansas

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Index

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