As a comprehensive community college, our mission is to provide quality education and to economically enhance the communities we serve.

The provisions of this publication do not constitute a contract or offer to contract with any person. The right to change any provision or requirement without notice at any time within the student’s term of attendance is reserved to Western Iowa Tech Community College.

WITCC follows the Code of Federal Regulations (CFR) set forth by the U.S. Government Publishing Office. For more information about college costs, financing, and job outlook, visit www.witcc.edu/ge.

It is the policy of Western Iowa Tech Community College not to discriminate on the basis of race, creed, color, sex, national origin, religion, age, disability, sexual orientation, gender identity, actual or potential parent, family or marital status in its programs, activities, or employment practices as required by state and federal civil rights regulation.

If you have questions or complaints, please reference https://www.witcc.edu/board/policies.cfm or call (712) 274-6400 ext. 1220, and/or email brenda.bradley@witcc.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.

Individuals using assistive technology (such as a screen reader, Braille reader, etc.) who experience difficulty accessing information on this web site, should send an email to the Webmaster at webmaster@witcc.edu. The e-mail should include the nature of the accessibility problem and the individual’s e-mail address for a response. If the accessibility problem involves a particular Web page, the message should include the URL (Web address) of the page. We will contact individuals having accessibility problems within three business days to assist them and to provide them with the information being sought.

Western Iowa Tech Community College

Accredited/Approved by:
The Higher Learning Commission,
230 S. LaSalle Street, Suite 7-500, Chicago, IL 60604; (800) 621-7440
Iowa Department of Public Health, Bureau of EMS, 321 East 12th Street, Lucas State Office Building, Des Moines, IA 50319-0075; (515) 281-3741
Commission on Dental Accreditation, 211 East Chicago Avenue, Chicago, IL 60611; (312) 440-2500
Commission on Accreditation in Physical Therapy Education (CAPTE),
1111 N. Fairfax St., Alexandria, VA 22314; (703) 706-3245
Iowa Board of Nursing, Riverpoint Business Park, 400 S.W. 8th Street, Ste B, Des Moines, IA 50319-0166; (515) 281-3255
National Council of State Boards of Nursing, 111 East Wacker Drive, Suite 2900, Chicago, IL 60601-4277; (312) 525-3600
Medical Assisting Education Review Board, 20 N. Wacker Drive, Ste. 1575, Chicago, IL 60606; (800)-228-2262
Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC-STSA), 6 W. Dry Creek Circle, Suite #110, Littleton, CO 80120; (303) 694-9262
Iowa Board of Educational Examiners, 400 East 14th St.,Grimes State Office Building, Des Moines, IA 50319-0147; (515)-281-3245
Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions, 8301 Lakeview Parkway, Ste. 111-312, Rowlett, TX 75088; (214)-703-8445
Commission on Accreditation of Allied Health Education Programs (CAAAEP);
25400 US Highway 19 N., Suite 158, Clearwater, FL 33763; (727) 210-2350

The nursing education program is a candidate for accreditation by the Accreditation Commission for Education in Nursing.
Accreditation Commission for Education in Nursing (ACEN)
3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326; (404) 975-5000

Curricula approved by:
Iowa State Board of Education

Approved for:
Associate of Arts Degree
Associate of Science Degree
Associate of General Studies Degree
Associate of Applied Science Degree
One-year Diploma
Occupational Proficiency Certificate
Veterans’ Training

Member of:
Iowa Association of School Boards
Iowa Association of Community College Trustees,
Presidents

800.352.4649 or www.witcc.edu
**Telephone Listings**

**Sioux City – Main Campus**
4647 Stone Ave., Sioux City, IA
- Information..........................(712) 274-6400
- Admissions..........................274-6403
- Financial Aid..........................274-6402
- Registration..........................274-6404
- Toll Free.............................(800) 352-4649

**Sioux City – Beltway Center**
3415 Highway 75 North, Sioux City, IA (712) 274-6449

**Cherokee Campus** ..................(712) 225-0238 or 200 Victory Drive (800) 352-4649, ext. 1240

**Denison Campus** ....................(712) 263-3419 or Hwy. 30 E./11 N. 35th Street (800) 352-4649, ext. 2621

**Mapleton Center** ....................(712) 882-2401
38491 Hwy. 175 North

**Le Mars Center** ......................(712) 546-7338
25 5th Avenue NW
www.witcc.edu

**Sioux City Campus**

**College Calendar 2019–2020**

**FALL SEMESTER**
- August 22, 2019 Classes Begin
- September 2 Labor Day Holiday; No Credit Classes; College Closed
- October 16 and 17 Staff Development; No Credit Classes; Offices Closed
- October 18 No Credit Classes; Offices Open
- November 28 and 29 Thanksgiving Break; No Credit Classes; College Closed
- December 19 Fall Semester Ends After Last Regularly Scheduled Class; No Evenings; Graduation
- December 20 Faculty Workday; No Classes; Offices Open
- December 23 No Credit Classes; Offices Open
- December 25 No Classes; Offices Closed

**SPRING SEMESTER**
- January 16, 2020 Classes Begin
- March 9 and 10 Staff Development; No Classes; Offices Open
- March 11–13 No Credit Classes; Offices Open
- April 10 Spring Break; College Closed
- May 14 Spring Semester Ends After Last Regularly Scheduled Class; Graduation
- May 15 Faculty Work Day

**SUMMER SEMESTER**
- May 26, 2020 Classes Begin
- June 26 First Half Summer Semester Ends
- June 29 Second Half Summer Semester Begins
- July 31 Summer Semester Ends After Last Regularly Scheduled Class; No Evening Classes

**NOTE:** College holidays and break periods begin with the close of regularly scheduled evening classes on the class day immediately preceding the holiday or break period. Classes resume at their regularly scheduled starting time on the first day following a holiday or break.

The College Now (League of Schools) programs may adjust their calendars to meet the individual needs of their respective school districts.

The Iowa Community College Online Consortium (ICCOC) sets the online class schedule. The online semester dates may vary from the face-to-face semester by a few days.
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41 Medical Coding Specialist
41 Medical Secretary
41 Medical Transcriptionist
41 Health Information Technology
42 Administrative Office Management
42 Administrative Office Support
42 Office Assistant
43 Agribusiness Technology
43 Agriculture Management
43 Agriculture
44 Air Conditioning, Heating, and Refrigeration (Diploma)
44 Air Conditioning
44 Heating
44 Audio Engineering Technician
45 Audio Production Assistant
45 Auto Collision Repair Technology
45 Auto Body Refinishing
45 Auto Body Structural Repair
45 Auto Body Procedures
45 Auto Body Repair
45 Automotive Painting
46 Automotive Technology
47 Auto Mechanic
47 Automotive Drive Train
47 Automotive Electrical
47 Band Instrument Repair
48 Broadcasting and Multimedia Journalism
48 Business Management
49 Technical Business Management
49 Certified Personal Trainer (Diploma)
49 Certified Personal Trainer (Certificate)
50 Coaching (Certificate)
50 Construction (Diploma)
50 Carpentry
50 Concrete Specialties
50 Drywall
50 Interior Finishing
50 Wall Framing and Roofing
51 Culinary Arts
51 Food Services
52 Food Preparation
52 Cyber Security and Digital Crime
52 Information Security Analyst
52 Dental Assisting (Diploma)
53 Expanded Functions Dental Assistant
53 Nitrous Oxide/Oxygen Sedation Monitoring-Dental Assistant
53 Digital Marketing
54 Early Childhood Education
54 Early Childhood Studies
54 Child Development-Infant/ Toddler
54 Child Development-Preschool
55 Early Childhood Program Administration
55 Electromechanical Technician (Diploma)
55 Electromechanical Specialist
56 Predictive Maintenance Advanced Certificate
56 Electrician (Diploma)
56 Emergency Medical Services-Paramedic
57 Paramedic
57 Advanced Emergency Medical Technician
57 Emergency Medical Responder
57 Emergency Medical Technician
58 Entrepreneurship (Diploma)
58 Entrepreneurship Concepts
58 Fire Fighter/Paramedic
58 Fire Science
59 Entry-Level Firefighter
59 Graphi Design
59 Marketplace Place Design (Diploma)
60 Hospitality Management
60 Hospitality Operations
60 Hospitality Operation Concepts
60 Human Resources Management
61 Human Resources
61 Mechanical Engineering Technology
61 Manufacturing
61 Industrial Drafting Technology
62 Medical Assistant (Diploma)
62 Medical Scribe
63 Medical Scribe - Advanced Standing
63 Network Administration and Security
63 Computer Support Technician
64 Help Desk Technician
64 Nursing
64 Practical Nursing
64 IV Therapy Concepts and Review
64 Nursing Assistant
64 Medication Aide
65 Paralegal/Legal Assistant
65 Legal Secretary
65 Paralegal/Legal Assistant - Advanced Standing
66 Paralegal/Legal Assistant - Advanced Standing Part Time
66 Pharmacy Technician (Diploma)
66 Physical Therapist Assistant
67 Plumbing Systems (Diploma)
67 Residential Plumbing
67 Police Science-Corrections
68 Police Science Technology
68 Law Enforcement Advanced Diploma
68 Professional Photography
69 Professional Photography Technician
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800.352.4649 or www.witcc.edu
Career Cluster Program Index

The States’ Career Clusters Initiative (SCCI) is a national initiative intended to help states and schools organize their programs and guidance activities around clusters of similar occupations. The 16-cluster format used by the U.S. Department of Education encompasses all 970+ occupations.

“Our 16 broad career clusters will help students enhance the link between the knowledge they acquire in school and the skills they need in the workforce. Without limiting students, career clusters help them focus on an area of interest or a possible career path.”

– Richard W. Riley, Former U.S. Secretary of Education

Agriculture, Food, and Natural Resources
Agribusiness Technology, Agriculture Management, Veterinary Assistant

Architecture and Construction
Air Conditioning, Heating, and Refrigeration, Construction, Electrician, Industrial Drafting Technology, Plumbing Systems

Arts, A/V Technology and Communications
Audio Engineering Technician, Band Instrument Repair, Broadcasting and Multimedia Journalism, Graphic Design, Marketplace Design, Professional Photography, Video Game Design, Video and Media Production

Business, Management and Administration
Accounting, Administrative Office Management, Bookkeeping and Office Support, Business Management, Entrepreneurship, Human Resources Management, Digital Marketing

Education and Training
Coaching, Early Childhood Education

Finance
Financial Services

Health Science
Administrative Assistant-Medical, Certified Personal Trainer, Dental Assisting, EMS-Paramedic, Medical Assistant, Medical Coding, Medical Scribe, Medical Secretary, Nursing-CNA/LPN/RN, Pharmacy Technician, Physical Therapist Assistant, Pre-Dental Hygiene, Surgical Technology

Hospitality and Tourism
Culinary Arts, Hospitality Management

Information Technology
Cyber Security and Digital Crime, Information Systems, Networking Administration and Security

Law, Public Safety, Corrections and Security
Fire Science Technology, Paralegal/Legal Assistant, Police Science Technology, Police Science Corrections, Police Science Forensic Investigations

Manufacturing
Electromechanical Technician, Manufacturing, Mechanical Engineering Technology, Robotics and Automation, Welding

Transportation, Distribution and Logistics
Auto Collision Repair Technology, Auto Mechanics, Automotive Technology, Motorcycle Powersports Technology, Truck Driver Training
Mission, Values and Guiding Principles

Mission

As a comprehensive community college, our mission is to provide quality education and to economically enhance the communities we serve.

To accomplish the mission, the College will:

• Provide post-secondary occupational education leading to diplomas, certificates, and the Associate of Applied Science degree.
• Provide post-secondary general and transfer education leading to the Associate of Arts or Associate of Science degree.
• Provide basic education for the improvement of academic skills and/or leading to a High School Equivalency Diploma (HSED).
• Provide economic development programs and assistance.
• Provide lifelong community and continuing education.
• Develop partnerships with educational institutions, businesses, governmental agencies, and communities.
• Develop programs for participation in the global economy.
• Provide student development services to improve the academic success of our diverse student population.
• Provide opportunities for our students to participate in leadership development and in community, social, and recreational activities.
• Maintain a learning and working environment that is safe, clean, and comfortable.
• Provide student and employee support services to operate the College.

Values and Guiding Principles

• **Student Learning.** We value the personal, intellectual, and occupational growth of our students.
• **Quality.** We are committed to quality instruction and services to maximize student success and employer satisfaction.
• **Access.** We provide access to the College by addressing student needs related to time, location, and cost.
• **Diversity.** We respect individual differences and strive to meet the needs in our diverse communities.
• **Lifelong Learning.** We promote lifelong learning for personal and professional development.
• **Academic Freedom.** We are dedicated to the free exchange of ideas and information which promotes our growth as an educational institution.
• **Shared Governance.** We believe in shared governance and encourage our employees and students to contribute to the development of the College.
• **Efficiency and Effectiveness.** We are committed to continuous improvement and fiscal responsibility within our educational programs and College services.
• **Dedication.** We value a workplace which promotes mutual respect and cooperation between the College and the employees.
• **Professional Integrity.** We are committed to high standards of ethics and integrity in our relationships, our professional activities, and the performance of our duties.
Academic Vision

Western Iowa Tech Community College’s scholar-practitioner model of learning is embedded in a culture of innovation, carried out with integrity and evidenced through the success of our learners and our communities.

The best place to start and succeed
– creating opportunities in an environment of hope for all learners
– providing meaningful education and training so that learners may successfully pursue careers and/or further their education
– promoting and transcripting credentialed, lifelong learning
– engaging communities regionally, nationally, and globally

Learner-centered
– examining the implications of ethical, historical, economic, and social trends
– developing, deploying, and assessing curriculum to meet learners’ needs
– cultivating technical and professional skills for tomorrow’s workforce
– encouraging excellence in employees
– providing comprehensive support systems

Innovative
– encouraging creativity as a means for generating positive change
– fostering openness and diversity of thought, experience, and culture
– forging relevant interdisciplinary learning opportunities
– collaborating globally in regional economic development
– expanding workforce and industry capability
– embracing an evolving curriculum architecture process

A model of integrity
– demanding academic rigor and relevance
– fostering WITCC’s values and guiding principles
– accomplishing initiatives through genuine empowerment
– operating resourcefully, effectively, and efficiently
– establishing a shared vision through effective internal governance

Adopted Fall 2006, Affirmed 2012
Western Iowa Tech Community College is a publicly supported comprehensive community college serving the Iowa counties of Cherokee, Crawford, Ida, Monona, Plymouth, and Woodbury, which have a combined population of about 180,000.

A nine-member Board of Directors provides governance for Western Iowa Tech Community College. The board members are elected from the nine districts in the six-county service area. The College is accredited by the Higher Learning Commission and is regulated by the Iowa State Department of Education.

Brief History
The College was organized in August 1966 and created as an area vocational-technical school as provided in Chapter 280A of the Iowa Code. The first board of directors was chosen at a special school election on November 2, 1966. The Board selected Dr. Robert H. Kiser to serve as chief administrator and named the school Western Iowa Tech.

The first classes began on January 27, 1967, when Western Iowa Tech accepted responsibility for one vocational and two technical postsecondary programs then operated by the Sioux City Community Schools. By fall term of 1967, 17 full-time programs were in operation. At that time, Western Iowa Tech also assumed direction of all adult basic, high school completion, high school equivalency certificate and occupationally oriented adult educational programs. At this point enrollment totaled 230.

During the first years of operation, WITCC offered programs at various temporary locations throughout Sioux City. The first administrative home in 1966 was the former Hobson School building located at 222 South Floyd Boulevard. In 1968, the administrative offices were moved to the former Trinity Prep campus at 3075 Floyd Boulevard.

In 1970, enrollment totaled 510 and a permanent campus was established on a 143 acre site at 4647 Stone Avenue. The first building was completed and occupied during the 1970-71 school year. In November 1972, ground was broken for another, adjacent building. In 1973, when Western Iowa Tech received permission to offer a two-year associate of arts degree, the curriculum became fully comprehensive. The facility for radio station KWIT was completed in 1978. The station provided public, non-commercial radio within an 80-mile radius of the city.

In the fall of 1980, credit enrollment totaled 1,323. During the same year, construction was completed on the then Student Center and the Gaylord Smith Vocational Building. On-campus housing, Sun Ridge Court Apartments, was built in 1982. In 1984, the Transportation Center, located at 5001 East Gordon Drive, was added to the Sioux City campus.

In 1990, credit enrollment totaled 1,687. In 1991, Dr. Robert H. Kiser retired from the presidency of the College after 25 years of service. Dr. Robert E. Dunker, a graduate of the College's first Mechanical Drafting and Design Technology class, was selected by the Board of Directors as the second president to lead Western Iowa Tech Community College. In 1992, remodeling of the College's original structure added two lecture halls and an interactive television classroom. Distance learning became a reality. Through community partnerships, the College constructed and opened the Denison Campus in 1993. In 1996, through community partnerships, the College constructed and opened the Cherokee Campus and Conference Center. In 1994, extensive construction joined the College's first two structures into an instructional, student service administrative facility known as the Dr. Robert H. Kiser Building.

In 2000, fall credit enrollment totaled 4,365. Online classes were first offered in 2002 providing a whole new, convenient platform for learning. KWIT added KOJI in 2002 bringing Iowa public radio programming to the Great Lakes region for the first time. In 2003, the Denison campus was remodeled and expanded adding classroom, library and new high-tech equipment space. During that same year, the first tree was planted on the Sioux City campus's Loess Hills Arboretum and Nature Trail. The Advanced Sciences Building, which was started in 2003, was dedicated and held its first classes in 2005. It added 78,000 square feet of additional instructional space to the Sioux City campus.

In 2008, the Sioux City campus expanded significantly adding 66 acres of undeveloped woodland, prairie, and watershed to its Loess Hills Arboretum and Nature Trail. A new residence hall, The Bur Oak Suites, was also completed adding housing for 185 more students. Likewise, The Security Institute, a 37,000 square foot facility was constructed. The structure is a collaboration of the College, the City and County and provides training in real-life, real-time condition of crisis and a new location for county 911 communications and city/county emergency operations. In 2009 the Beltway Center on Highway 75 North in Sioux City was secured as a site for transportation related training including truck driving and motorcycle handling.

In 2010, credit student enrollment reached 6,421. During 2011, Dr. Robert E. Dunker retired as president and the College’s new student center was named in his honor. This 40,000 square foot center provides fitness and meeting facilities for learners and employees. Dr. Terry A. Murrell, who joined Western Iowa Tech four years earlier, was selected by the Board of Directors after a national search to become the College’s third president. During 2012, renovations of existing facilities upgraded the student learning environments in the Kiser Building and community meeting area in the Corporate College. In 2014, another complex, Prairie Place, was added to the Sioux City campus bringing total housing accommodations to more than 500 students, and a permanent WITCC Le Mars Center was opened. In 2015, the campus and the student experience were infused with technology. Each student was provided a laptop loaded with curriculum-specific software. Students were give internet connectivity 24/7 and the Sioux City, Denison and Cherokee campuses became interconnected with virtual classrooms. In 2016, the College celebrated 50 years of operation and lost its first president, Dr. Robert H. Kiser. In 2017, WITCC was recognized as an Apple Distinguished School for its innovative uses of technology.
Enrollment Services

WITCC is committed to providing an atmosphere that encourages scholarship, the robust exchange of ideas and interaction with others in a safe environment.

WITCC reserves the right to deny admission or place conditions on admission or the enrollment of any applicant, student, or former student if WITCC determines that such person presents an unreasonable risk to the safe and orderly campus environment.

WITCC also reserves the right to deny a student’s application for residence hall housing, or remove a student from a residence hall, if it is determined that the student presents an unreasonable risk of harm to others in the residence hall.

A Checklist for Registration and Your Academic Success

✓ Complete and Submit Application for Admission
  • Apply online at www.witcc.edu.
  • Application available in Enrollment Services (Room A300) on the Sioux City Campus, or the main office on the Denison, and Cherokee campuses.

✓ Request high school transcripts and any college transcripts to be sent to WITCC (4647 Stone Ave., PO Box 5199, Sioux City, IA 51102) or admissions@witcc.edu.

✓ Apply for Financial Aid if needed
  • Apply online at www.fafsa.gov.
  • Start this process early. It can take 6-8 weeks for government aid applications to process.
  • If you need assistance applying, call Financial Aid at (712) 274-6402.

✓ Visit with an Admissions Advisor
  • Discuss any necessary assessments, develop an academic plan, select and schedule classes.

✓ Take any Required Assessments
  • Students with an ACT composite of 22 or higher may be exempt. Please consult with an advisor to determine if your planned program requires assessments and for referral to Testing Center.
  • Call Denison at ext. 2621; or call the main office in Cherokee at ext. 1240.

✓ Register for your WITCC Classes
  • Online - using my.witcc.edu, under “Student Planning”
  • By telephone - call (712) 274-6404, or (800) 352-4649, ext. 6404; in Denison at ext. 2621; in Cherokee at ext. 1240
  • In person - in Enrollment Services (Room A300) on the Sioux City campus; or the main office on the Denison, or Cherokee campuses.

✓ Pay your Tuition
  • In person; by phone at (712) 274-8733, ext. 1210; or online at my.witcc.edu; or Student Financial Services on the Sioux City campus; or the main office in the Denison or Cherokee campuses.
  • Refer to Methods of Payment and Tuition Charges on the following pages of this booklet.

✓ Purchase Books
  • Online at bookstore.witcc.edu.
  • Bookstore hours are 7:30 a.m.-6 p.m. Monday - Thursday and 7:30 a.m. - 5 p.m. on Friday on the Sioux City campus.
  • Go to the main office at the Denison, or Cherokee campuses.

✓ Go to Class!

Applying for Admission

Western Iowa Tech Community College is an open enrollment institution. To be admitted to the College as a student, new students must submit a completed Application for Admission. Admission to the College does not guarantee admissions into programs or courses.

Applicants are asked to submit an official high school transcript showing receipt of high school diploma, or submit official documentation that a GED/HSED has been received. A high school transcript is required for admission to some programs. Students should also have transcripts sent from any previous colleges attended.

Transfer Students
Admitted students who want credits transferred to WITCC from another postsecondary institution need to submit an official transcript to the Registrar. Grades earned with a “C” or higher are eligible for transfer.

Readmitting Students
A student who has a break in enrollment in the College for two or more consecutive semesters, excluding summer sessions, is readmitted to the College under the catalog program requirements in effect at the time of readmission. The student must submit a new Application for Admission prior to registering.

International Students
The following conditions apply to students from outside the United States seeking admission to the College:

1. Immigration laws require international students on certain visas to attend college as full-time students.
2. Any individual with a visa and enrolled as a student will be considered to be a non-resident for purposes of tuition payments.
3. Students must take the English Placement Test when they arrive on campus. Based on the results of this test, the student will be placed in appropriate academic classes as test scores indicate. The classes are held at the Sioux City main campus.
4. The applicant is required to complete the Application for Admission (International Student) form.

5. The applicant must provide an official high school transcript of grades (English translation) with the date of graduation. For students transferring from another college or university, official transcripts are required (certified English transcripts).

6. The applicant must provide evidence of financial independence while attending college. A deposit covering tuition, fees, books, supplies, and an estimated cost of living expense allowance for one semester must be submitted in advance.

7. Although all of the deposited money may not be needed, it is available to the student and may be used as conditions warrant. The unspent money, with any accrued interest, is returned to the student at the time of departure.

8. Upon completion of the requirements for admission, the I-20 Eligibility Form and a letter of acceptance will be sent to the applicant. The applicant is responsible for all costs associated with the application process.

College Experience Class
SDV-108, The College Experience, is a one-credit, pass/fail course. This course introduces students to the college’s expectations, environment, and resources so that students may become more competent participants in the learning process. The College Experience allows students opportunities to learn about WITCC policies and procedures that will impact them. They also learn about acclimation to college, financial aid, campus security, self-advocacy, learning styles, study habits, student activities, and much more. Students are required to enroll in The College Experience during their first semester of college. The College Experience, SDV-108, is a required course for all new certificate (12+ credits), diploma, and degree-seeking students, part-time or full-time. Successful completion of SDV-108 is a requirement of graduation. All students will benefit from SDV-108; however, students who fit into the following categories may request a waiver for the course:

Those students who have successfully passed a similar course at another institution.

Those students who transfer 12 or more credits with a minimum GPA of 2.0.

Those students who attended Western Iowa Tech prior to the Fall 2012 semester and successfully completed 12 or more credits with a minimum GPA of 2.0. This does not include those students who completed college-level courses while enrolled in high school.

Criteria for Admission to Specific Programs

Programs which have program-specific admission criteria include, but are not limited to:

- Early Childhood Education
- Health Occupations
  - Associate Degree Nursing (RN)
  - Dental Assisting
  - Emergency Medical Services/Paramedic
  - Medical Assistant
  - Physical Therapist Assistant
  - Practical Nursing
  - Surgical Technology

For information on specific program requirements, contact Enrollment Services for a program handbook, or go to www.witcc.edu.

Admission to the programs listed above is based on the order in which the requirements for admission are completed and on the availability of space.

Health Occupations
Programs Requirements

- All students in the health careers have additional program specific admission criteria. Students entering health career occupations need to be able to perform certain activities in order to be successful in the occupation. The Iowa Core Performance Standards (found in the specific program requirements booklet) was developed so prospective individuals will be aware of the occupation requirements. Before final admission applicants are responsible for providing medical and other documentation related to any disability and the appropriate accommodations needed to meet the Core Performance Standards.

- Students in health careers will need to complete a criminal history and give permission to have individual criminal background checks completed. Results of the criminal background check will be released to many external affiliating agencies so students can be screened for acceptance into agencies for clinical experience.

- Students in health careers may need to consent for drug testing and release of that information to external affiliating agencies for clinical experience. The drug test is a urine specimen that is tested for the presence of drugs, including but not limited to amphetamines, cannabinoids (marijuana), cocaine, opiates, and phencyclidine (PCP).

- A health evaluation, which includes health history, hearing, vision, immunization record and physician physical, must be completed prior to entering the clinical phase of the program.
Registration

Registration is the process of selecting a course of study, officially enrolling for class(es) and the payment of tuition and fees. Dates of registration and instructions are published each semester in the Schedule of Classes and on the MyWIT “Academics” tab. Academic advising and assistance will be provided by faculty, admissions advisors, and other staff members; however, it is the responsibility of the student to be certain that the courses selected will meet the requirements for the degree, diploma or certificate in their program of study.

Registration Requirements
To register for classes, a student:
1. must complete the Admissions requirements;
2. have no outstanding financial or other obligations to the College;
3. must complete required pre-requisites
4. must be in good academic standing and cannot have been dismissed from the College for conduct reasons.

Changes in Registration
Students who wish to add or drop classes after registering for a semester should use Student Planning on my.witcc.edu or submit a completed Add/Drop/Withdrawal form at Enrollment Services, or call (712) 274-6404 or (800) 352-4649, ext. 6404. Students cannot drop using MyWIT Student Planning after the class has started. Must see Admissions staff.

Change of Major
Process to update Program of Study Information:
Go to MyWIT
Go to Academics
Student Planning > My Progress
Check active academic program and your catalog.
If not correct, contact Enrollment Services at (712) 274-6403, to make a change.

Fees and Expenses

Tuition and fee charges are determined annually by the WITCC Board of Directors and are published in the Credit Class Schedule book and in Student Planning on MyWIT.

Course Fees: Material and lab fees may be assessed on a course by course basis. A list of course fees is published in the Schedule of Classes and maintained in the Student Financial Services.

Books and Supplies: Students may purchase books and supplies through the WITCC Bookstore. Students attending classes in Cherokee, and Denison may purchase their books at those campus centers. Students may also purchase books online; go to bookstore.witcc.edu. Book rentals are available for some courses.

Laptop Policy: All tuition-paying, credit students may check out a college-issued laptop computer. Some restrictions may apply. Students who have been issued a device are required to turn in the laptop computer by the date set at the end of each semester unless the student is registered for the next academic semester. Failure to return the device will result in a monthly charge to be placed on the student’s account. The College will immediately bill the student or parent, if applicable, the full replacement cost of the issued device. WITCC may also require the device and all related materials to be returned to WITCC due to other reasons such as Student Code of Conduct violations, etc. as determined by the College.

Other: Depending on the program, the student may be required to purchase uniforms, tools, instruments or other equipment (examples of such programs or courses are art, science, health occupations programs, auto tech programs, construction trades, etc.). For an estimate of costs, see the program advisor.

Institutional Refund Policy: Students who stop attending and who fail to officially withdraw will NOT receive a refund of tuition and fees.

A schedule for refunding of tuition and/or fees is published each semester in the Schedule of Classes. Copies are available in Enrollment Services, Room A300, or online at my.witcc.edu.

Payment of Accounts

Charges incurred each semester for tuition, fees, and other expenses (books and supplies) are the responsibility of the student. Payment or arrangement for payment is due on or before the first day of class. Failure to make payment or payment arrangements may result in disenrollment of all classes.

No student shall be permitted to register for a new semester or attend classes until all prior accounts are settled. Students will not be granted a degree, diploma, certificate, final grade report, or official transcript until all outstanding accounts with the College have been paid in full.

1. Payment in Full – you may pay your tuition and fees in person, by phone, or online at my.witcc.edu. Payment may be made with cash, check, debit card, or credit card (Visa, MasterCard, Discover, or American Express).

2. Payment by Financial Aid – approved financial aid will be applied to the student’s charges.

3. Payment by Third Party – if sponsored by an agency (JTP, DVRS, etc.), please sign the invoice and return to Student Financial Services.

4. FACTS Tuition Payment Plan – Western Iowa Tech Community College has a tuition payment plan option to accommodate the financial needs of students. Students using the FACTS payment plan may apply online at any computer with online access by using my.witcc.edu. Additional information regarding online application is provided by Student Financial Services at (712) 274-8733, ext. 1210.

Returned Checks. A service charge is assessed for returned checks.
Residence Qualifications

For tuition charges, students will be classified as either an Iowa resident or non-resident based on the purpose of being in Iowa. A student is classified as a non-resident if the sole purpose for being in Iowa is to attend school. However, a student’s residency status may change, once the student has resided in the State of Iowa 90 days prior to the start of a semester.

If the student establishes an Iowa residence and wishes to apply for a change of status, it is the responsibility of the student to request a change of residency status by filling out the Request for Iowa Residency Status form. This request must be initiated with the Enrollment Services Office. Two forms of supporting documents will be required with the student’s current Iowa address. These documents must be dated 90 days prior to the beginning of the semester that Iowa residency will take effect. The decision of the Dean of Students will be final.

Appealing Tuition and Fee Charges

Students who must drop classes within a semester due to extenuating circumstances may request an adjustment of tuition. Extenuating circumstances may include medical hardship, the death of immediate family members, military activation, or other situations which prohibit the student from completing a class. Students appealing charges must provide supporting documentation.

Students wishing to appeal tuition and fee charges for a semester must complete the appropriate appeal form available at Enrollment Services. The appeal form must be received by the end of the subsequent semester. Appeals received after this time will NOT be reviewed. The Appeals Committee will review and make a decision. The decision of the Dean of Students, or its designee, is final.

Student Financial Aid Policy and Program

Western Iowa Tech Community College believes that the opportunity for a college education should be within the reach of all interested individuals. The College administers a financial aid program designed to assist the student who qualifies, to complete a diploma or degree program. The purpose of the Financial Aid Office is to assist, within the limits of its resources, students who have a financial need.

All students who are accepted to WITCC and apply for financial aid will be considered for aid regardless of race, creed, color, sex, national origin, religion, age, disability, sexual orientation, gender identity, actual or potential parent, family or marital status, or other protected basis as set forth in the College’s affirmative action plan. Students must make satisfactory academic progress to continue their eligibility for financial aid.

Applying for Financial Aid

To apply for financial aid a student must:

1.) Complete the Free Application for Federal Student Aid (FAFSA). The FAFSA is available online at www.fafsa.gov and may be submitted after January 1 for the school year beginning the next fall. If you need assistance accessing the FAFSA online, contact Student Financial Services.

2.) To receive financial assistance, the following requirements apply:
   • Graduation from high school, completion of the GED/HSED.
   • Admission into an eligible program at WITCC leading to a degree or diploma.
   • U.S. citizenship or eligible non-citizen status.
   • Possession of a valid Social Security number.
   • Must not be in default on any federal student loan or in repayment status on a federal grant.
   • Males who are required to be registered with the Selective Service must be registered.
   • If you are a returning student at WITCC, you must be making satisfactory academic progress as defined by the institution.

Financial Aid Refund Policy

Important Notice for Financial Aid Recipients

The American taxpayers have entered into an agreement with you by investing tax dollars in grants and loans for your education at Western Iowa Tech. This investment places a serious responsibility on you to complete your education according to the agreement with the American taxpayers. If you fail to complete your education, the American taxpayers are entitled to receive back, from you, a portion of their investment.

Consequences of Withdrawal and Financial Aid

A student receiving federal financial assistance may have his/her financial aid adjusted based on his/her date of official or unofficial withdrawal.

Withdrawal Policy

Withdrawal is defined as dropping all classes and having no credit hours for a given semester. A student officially withdraws from school when:
   • The student submits a written notice of total withdrawal to Enrollment Services at any WITCC campus. (A signed official withdrawal form or other written notice, such as an e-mail to the registrar, constitutes a written notice.) OR
• The student calls Enrollment Services at any of the WITCC campuses and declares his/her intent to withdraw from all courses. The student must supply all information requested by the registration clerk or the withdrawal will not be considered official or completed. OR
• The student withdraws online from all classes using my.witcc.edu (only prior to the start date of the course).

The date of official withdrawal will be the date the written notice is received in Enrollment Services, or the date the student’s phone call is received, or online notice is processed.

A student will be considered to have unofficially withdrawn when:
• The student does not complete the official withdrawal process.

AND
• All of the student’s instructors report that the student is no longer attending classes.
• Or, the student has received an “F” grade in all classes.

The date of unofficial withdrawal will be the mid-point of the semester.

If the student wishes to document his/her last date of attendance, it is the student’s responsibility to have his/her instructors send an e-mail to Enrollment Services stating the last date the student participated in an academically related activity which was part of the course of instruction.

Return of Title IV Funds
Students receiving federal financial assistance may have his/her financial aid award adjusted based on his/her date of official or unofficial withdrawal.

Calculating Title IV Returns
It is the responsibility of the Financial Aid Office to complete the calculation of Title IV returns within the timeframe required by federal regulation. WITCC returns the calculated amount to the Department of Education which creates a bill owed to WITCC. The following steps outline the general procedures used to calculate a Title IV return amount.

Step 1: Determine the percentage of federal aid earned by calculating the percentage of the semester that the student completed.
Step 2: Determine the amount of federal earned aid by applying the percentage to the total Title IV aid that was or could have been disbursed.
Step 3: Determine the amount of unearned federal aid by subtracting earned aid from disbursed aid or determine the amount of a post-withdrawal disbursement by subtracting disbursed aid from earned aid.
Step 4: If unearned funds must be returned, determine the school’s and the student’s shares; or if a post-withdrawal disbursement is due, determine the sources from which it will be funded.

Step 5: If unearned funds must be returned, allocate unearned aid to programs from which student was funded; or if a post-withdrawal disbursement is due, send student notification.

Step 6: Return the institution’s share and any funds repaid by the student or refer the student to the Department of Education; or make the post-withdrawal disbursement.

Procedure for Repaying the U.S. Government
If you owe a repayment of grants to the U.S. Government, you will remain ineligible for federal aid until you resolve your repayment. If you owe a repayment for grants received at WITCC, it may be possible to resolve your repayment at Student Financial Services. Contact Student Financial Services for details.

If you do not contact Student Financial Services within 15 days of receiving notice and schedule your repayment, you will be turned over to the U.S. Department of Education for collection. If you are referred to the Department of Education, you will remain ineligible for federal aid until the college receives notice from the Department of Education that you have re-established your eligibility.

Carefully read all correspondence received from WITCC in case there is a change in your financial obligation to the college or your financial aid eligibility.

If you have any question about the effect of the Return of Funds to the federal aid programs, contact Student Financial Services.

Satisfactory Academic Progress Standards for Financial Aid Recipients
Federal and state regulations require students receiving financial aid to maintain satisfactory academic progress. These standards apply to recipients of federal, state, and institutional programs administered by the WITCC Financial Aid Office. Scholarships awarded by WITCC from institutional or foundation resources are governed by criteria specific to those awards.

Satisfactory academic progress is evaluated at the end of each semester during the regular academic year. Students attending summer sessions are evaluated at the end of the second session. Satisfactory Academic Progress Standards apply to all work attempted even though a student may not have been receiving financial aid.

A student must complete his/her program within 150 percent of the amount of credits normally required to complete a degree or diploma.

A minimum 2.0 cumulative grade point average for all course work at WITCC is required. In addition, a student must complete 67% of all hours attempted at WITCC.
1.) Credit hours completed are:
   a. “A” through “D-” grades
   b. “P” passing with credits
2.) Incomplete credit hours are:
   a. “F” grade
   b. “W” grade
   c. “X” replaced grade
   d. “O” academic renewal
   e. “I” incomplete
   f. “Q” grade
3.) A student who withdraws from WITCC and re-enrolls at a later date will return with a financial aid status determined at the end of the semester for which he/she withdrew from WITCC.
4.) Transfer students may be assumed to be making satisfactory progress for the first disbursement of financial aid funds. Cumulative GPA for transfer students is based on WITCC academic work only. However, credits transferred from other institutions will be used to evaluate program completion within the 150 percent time frame. Transcripts from all previously attended post-secondary institutions may be required.

Financial Aid Warning

A student who has received financial aid is placed on financial aid WARNING the first time he/she fails to maintain a 2.0 cumulative grade point average or fails to complete 67% of all hours attempted. A student on financial aid WARNING continues to receive financial aid. If a student does not meet the minimum levels by the end of the WARNING semester, the student is considered to be making unsatisfactory academic progress and is NOT ELIGIBLE for Financial Aid.

However, a student whose cumulative credits earned is 0 or whose cumulative grade point average is 0.0 will become ineligible. (See Appeal of Financial Aid Eligibility)

Notification

The Financial Aid Office notifies any student receiving financial aid who does not meet the minimum satisfactory academic progress standards by e-mail at their my.witcc.edu e-mail account.

Appeal of Financial Aid

“Not Eligible” Status

Any student who loses eligibility for financial aid based on academic performance has the opportunity to appeal and explain extenuating circumstances such as death of an immediate family member, serious illness or other significant circumstances which adversely affected their academic performance to the Appeals Committee.

An appeal must be outside of the student’s control, made in writing in a format provided by the Financial Aid Office and documentation supporting the extenuating circumstances must be submitted with the appeal.

An Academic Plan, signed by the student’s advisor, must also be submitted with the appeal.

The decision of the committee will be final.

Types of Financial Aid

Federal Programs

Federal Pell Grants. All students should apply for this grant by completing the Free Application for Federal Student Aid (FAFSA). The grant does not need to be repaid. Grants are variable in amount depending on student eligibility, enrollment status, and federal appropriations.

Federal Supplemental Educational Opportunity Grants (FSEOG). These grants are awarded to students demonstrating exceptional financial need. The Free Application for Federal Student Aid (FAFSA) is used to apply for these grants. Students are notified of their eligibility for this grant by the Financial Aid Office. Grants are variable in amount depending on student eligibility, enrollment status, and federal appropriations.

Federal Direct Stafford Loans. A student’s eligibility for the Federal Pell Grant must be determined before a Direct Loan may be processed. Submit the Loan Request Form to the Financial Aid Office online through my.witcc.edu and complete all loan eligibility requirements if you wish to borrow.

Federal Work-Study Programs. In addition to grants, students may be awarded part-time jobs funded through the Federal Work-Study Programs. Eligibility is based on financial need. Students employed under the Federal Work-Study Programs are paid monthly by check. Contact Student Financial Services for details.

State Programs

Visit www.iowacollegeaid.gov for complete details and deadlines for submitting the FAFSA.

Kibbie Grants and Iowa Vocational-Technical Tuition Grants. The Legislature of the State of Iowa sets aside funds each year to assist students who choose vocational programs at the Iowa area schools. Students must be residents of Iowa as defined in the state of Iowa Code and Policy.

All Iowa Opportunity Scholarship Program. This is a statewide need-based program to assist high-need Iowa residents. Recipients must demonstrate financial need and make satisfactory academic progress to receive the award.

Students must complete the All Iowa Opportunity Scholarship online application each year by March 1, at www.iowacollegeaid.gov. Students must also file the Free Application for Federal Student Aid (FAFSA) by March 1.

Education and Training Voucher (ETV) Grant. This grant program is a statewide need-based program to assist high-need Iowa residents who were in the Iowa Foster Care system. Recipients must demonstrate financial need and make satisfactory academic progress to receive this award.

Students must complete the ETV application online by March 1, at www.iowacollegeaid.gov to be considered for an award. Students must also file the Free
Application for Federal Student Aid (FAFSA) by March 1.

**Iowa National Guard Education Assistance Program.** Grant assistance for members of the Iowa National Guard. Annual application is required. Contact your Guard unit for application procedures and deadlines or go to www.iowacollegeaid.gov.

**Aid from Other States.** Non-Iowa residents may be eligible for assistance from their home state. Contact the WITCC Financial Aid Office if you need to know how to contact your state agency.

**Scholarships**  
**Foundation Scholarships.** The Western Iowa Tech Community College Foundation is a non-profit organization operated for charitable, scientific, and educational purposes. Students can view a complete list of Foundation Scholarships online at www.witcc.edu. Click on Scholarship under the Financial tab.

**Private Loans**  
Private student loans (also called alternative loans) are offered by outside lenders and are not affiliated with the U.S. Department of Education or WITCC. WITCC requires students to use all Federal Grant and Direct Loan options before considering a private student loan. WITCC does not offer a preferred lender list and it is the student’s responsibility to find a lender of their choice. **WITCC does not recommend private loans when federal aid options are available.**

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**Academic Information**

**Student Responsibility for Catalog Information**

Each student is responsible for being familiar with the information appearing in this catalog. **Failure to read the regulations will not be considered an excuse for noncompliance.** The College reserves the right to change policies or revise curricula as necessary.

**Credit for Prior Learning**

With proper assessment, learning outside the classroom can be recognized as part of the educational experience. WITCC acknowledges credit for prior learning through the following methods:

- Transfer of credits with a grade of “C” or better from other post-secondary institutions. (Courses or credits over seven years old may not apply.)
- College Level Examination Program (CLEP) (see page 24) General Examinations may be used for elective credit. Subject matter tests may be substituted for appropriate equivalent courses.
- Test-out exams (see page 25)
- Departmental challenge exams
- Defense Activity for Non-traditional Education Support (DANTES) (see page 23)
- American Council on Education Credit (ACE)
- Advanced Placement (AP) program of the College Board (see page 25)
- Program for Non-Collegiate Sponsored Instruction (PONSI)
- Work experience learning
- National Certification (current)
- High School Articulation Agreements

Questions regarding Credit for Prior Learning should be directed to Enrollment Services (A300) where they will be referred to the appropriate Academic Dean.

**Academic Advising**

Academic Advising is “key” to the success of every degree-seeking student at Western Iowa Tech Community College. While enrolled at WITCC, students will need to connect regularly with:

1. **Faculty Advisors** – Each degree-seeking student will be assigned a faculty advisor from their respective program of study. Faculty Advisors are assigned by the 8th week of the students first term at WITCC. Students can find their faculty advisor contact information at My.witcc.edu in the Advising section of Student Planning. The faculty advisor will work directly with each student to ensure progress toward completion of the academic program, as well as registering for the correct courses in the second semester and beyond. The faculty advisor can also serve as a referral source for internships, career field connections, and industry specific information.

2. **Admissions Representatives /Career Navigator** – Admissions Representatives and Career Navigators will register students for their first semester of course work at WITCC. They will provide basic information that new students need to get started. They will also be available to assist students during their entire WITCC experience through graduation. All degree-seeking students will be assigned an Admissions
Representative/Career Navigator beginning in the first term of attendance. This staff member will serve as an information and referral resource for questions related to career exploration, registration, financial aid, academic tutoring, resume writing, interview skills, just to name a few.

Academic success and degree completion is dependent upon the team effort of the student, faculty advisor, admissions representative/career navigator, and other faculty during the course of enrollment at WITCC.

**Role of the Student in Advising** – The role of the student is to:

a. Consult with the faculty advisor at least once per semester to ensure that progress in the designated program of study is in line with the students plan and timeline for graduation. Students will be expected to make an appointment with the faculty advisor or attend group advising meetings within their respective program of study department if sessions are provided. Students should develop a plan of study in Student Planning on MyWIT.

b. Consult with the assigned Admissions Representative/Career Navigator at least once per semester to ensure that the program of study and all student record and financial aid information is accurate and up-to-date. The student should set this appointment a minimum of one month prior to the end of each term in order to plan for the upcoming term.

**Role of the Faculty Advisor** – The role of the faculty advisor is to:

a. Be available for scheduled appointments with the student each semester to assess progress toward completion of the requirements for the degree program.

b. Serve as a resource for industry specific career related questions the student may have.

**Role of the Admissions Representative/Career Navigator** –

a. Be available for scheduled appointments with the student each semester to ensure that the program of study, student record and financial aid information is accurate and up-to-date. The student should set this appointment a minimum of one month prior to the end of each term in order to plan for the upcoming term.

b. Be a referral source to assist students in addressing individual barriers and making the best use of College resources to ensure completion of the program of study.

**Policy for Prerequisite Courses**

Students are responsible for meeting prerequisites before enrolling in a course. An Academic Dean or chair may waive course prerequisites for demonstrated course equivalency and/or achievement of the course competencies. Contact the Academic Dean/Chair or Registrar for the appropriate form. A grade of C (2.0) or better is required for prerequisites in some professional courses (such as health occupations programs); a passing grade is required for prerequisites in general education courses. Some state and national accrediting agencies may require certain departments to have higher minimum standards.

**Independent Study Courses**

Independent study courses are defined as WITCC college credit courses that may be taken by a student on an independent study basis due to special circumstances.

A course that is taken on an independent study basis must be a WITCC college credit course that is listed in the college catalog and is required for a student’s program of study. A student enrolled in an independent study course must complete the same course requirements as when it is offered in a traditional class format.

An independent study course will have the same course prefix and number as other similar courses; however, a special section number will be assigned. To register for an independent study, a student must complete a Request for Independent Study form which is available from Academic Deans or Chairs. All academic and registration policies and procedures for college credit courses are applicable to independent study courses.

**Transcript Request Information**

Order online 24/7. Go to [www.witcc.edu/onestop/transcripts.cfm](http://www.witcc.edu/onestop/transcripts.cfm).

- There is a $5 charge for each transcript, so have your payment method ready.
- You can choose Electronic or Mail delivery. Electronic can be processed immediately. Mail can take up to ten business days to receive.
- You can request one of three processing options:
  1. Send Now: Will send immediately regardless of grades being posted or pending graduation. What you have transcripted at the moment you submit the request is what will be included.
  2. After Grades: Will wait until this semester’s grades have been issued before sending.
  3. After Degree: Will wait until your degree has been awarded for the current term before sending.
- If you need assistance, please contact the National Student Clearinghouse’s transcript ordering service at 703-742-7791 or transcript@studentclearinghouse.org for assistance.

**Student Classification**

Students taking 12 credit hours or more are classified as full-time students during each semester, fall, spring, and summer. Students who take less than 12 credit hours per semester are classified as part-time students.
Grades

Unit of Credit
Each course carries academic credit based on the total contact hours and the method of instruction. Units of credit are used in determining student grade point averages.

Grading System
Students enrolled in credit courses will be graded by the following letter-grade and point system. These represent various levels of accomplishment and grade points earned.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
<th>Grade Points per cr. value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent achievement.</td>
<td>4</td>
</tr>
<tr>
<td>A-</td>
<td></td>
<td>3.67</td>
</tr>
<tr>
<td>B+</td>
<td></td>
<td>3.33</td>
</tr>
<tr>
<td>B</td>
<td>Above average achievement.</td>
<td>3</td>
</tr>
<tr>
<td>B-</td>
<td></td>
<td>2.67</td>
</tr>
<tr>
<td>C+</td>
<td>Average achievement.</td>
<td>2.33</td>
</tr>
<tr>
<td>C</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>C-</td>
<td></td>
<td>1.67</td>
</tr>
<tr>
<td>D+</td>
<td>Below average achievement.</td>
<td>1.33</td>
</tr>
<tr>
<td>D</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>D-</td>
<td></td>
<td>0.67</td>
</tr>
<tr>
<td>F</td>
<td>Failing. Course requirements have not been met.</td>
<td>0</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete. Work acceptable but incomplete.</td>
<td>Not computed</td>
</tr>
<tr>
<td>P</td>
<td>Pass. Acceptable work in course taken as Pass/Fail</td>
<td>Not computed</td>
</tr>
<tr>
<td>Q/NP</td>
<td>Failing. Course requirements not met in course taken as Pass/Fail</td>
<td>Not computed</td>
</tr>
<tr>
<td>W</td>
<td>Withdrawal.</td>
<td>Not computed</td>
</tr>
<tr>
<td>N</td>
<td>Audit.</td>
<td>Not computed</td>
</tr>
<tr>
<td>AW</td>
<td>Administrative Withdrawal.</td>
<td>Not computed</td>
</tr>
<tr>
<td>O</td>
<td>Academic Renewal.</td>
<td>Not computed</td>
</tr>
<tr>
<td>T</td>
<td>Credit granted by testing.</td>
<td>Not computed</td>
</tr>
<tr>
<td>L</td>
<td>Credit granted for prior learning.</td>
<td>Not computed</td>
</tr>
<tr>
<td>X</td>
<td>Course repeated.</td>
<td>Not computed</td>
</tr>
</tbody>
</table>

Grade Point Average
The cumulative grade point average (GPA) is determined by dividing the total number of grade points earned by the total number of credits in those courses taken at Western Iowa Tech Community College. Grades that do not carry points are not included in the grade point average.

The semester cumulative grade point average is determined by dividing the total number of grade points earned in a semester by the total number of credits in those courses.

Students with a cumulative GPA of 3.5 or higher will be given special recognition during graduation ceremonies for their outstanding achievements. Honors are also noted on the student’s official transcript.

Grade Reports
No grade reports will be mailed to the student's home address. The student may access grades via MyWIT Student Planning at my.witcc.edu.

Repeating a Course
Students may wish to repeat a previously taken course. Both courses will be shown on the permanent transcript. Only the latest grade will be computed in the cumulative grade point average.

Veterans should consult with the Veteran's Advisor in Enrollment Services before repeating any course.

Academic Renewal
Academic renewal permits the removal of credit hours and grades for one or two semesters from a student's grade point average to allow for improvement of the student's cumulative GPA.

A student may be granted academic renewal only one time. A student must have completed 12 semester credit hours with a minimum grade point average of 3.00, or 24 semester credit hours with a minimum grade point average of 2.50 following the term(s) for which renewal is sought.

Courses and grades, which are granted academic renewal, will remain on the student's official transcript, but will be marked with an "O." These hours and grades will not count toward graduation or be included in calculating the student's cumulative GPA. Courses which have been considered in granting a previous graduation award are not eligible for Academic Renewal.

Students who are granted academic renewal may be required to pay back some or all benefits received for those courses and terms for which veteran's benefits or financial aid was received.

Auditing a Course
A student who audits a class is required to pay tuition and other required fees. To audit a class, a student must complete the Audit Permit form within ten (10) days after the class starts. Students who audit a class will receive a grade of "N" but will receive no credit.

Incomplete Grades
To receive an Incomplete ("I") grade, students must contact their instructor prior to the end of the semester requesting a grade of incomplete. The instructor must complete an Incomplete Grade Contract form. Instructors may assign incomplete grade ("I") only when a student who is doing ACCEPTABLE course work and is unable to complete the course because of an illness or other extenuating circumstances, i.e., military service, hardship, or death in the immediate family.

A student shall have until the end of the next regular semester following receipt of the "I" to meet the conditions of the contract. If the student fails to do so, the "I" will be changed to an "F" grade.
Attendance
Students are expected to attend all sessions of classes for which they are enrolled. Absences do not excuse the student from meeting the course requirements and the student must take the initiative in making up any missed work as permitted by the instructor. Each instructor will provide policies concerning course attendance. Students who require an extended leave of absence due to extenuating circumstances should communicate directly with their instructors.

Attendance and participation in courses, both on-campus and online, will be monitored and tracked by instructors and advisors. The college may administratively withdraw any student who fails to attend or participate in an on-campus or online course for 14 calendar days. Lack of attendance or participation may also negatively impact the student's eligibility to receive federal financial aid or may require that funds previously received by the student be returned to the federal aid program. Students who are administratively withdrawn from their courses are responsible for all costs associated with the academic term and will not be allowed to continue to reside in on-campus housing.

Scholastic Recognition
Scholastic recognition is available to students who have completed 12 or more graded semester credits during the fall, spring, or summer semesters. Students are eligible for the following academic honors.

1.) President’s List GPA = 4.0000
2.) WITCC Scholar List GPA = 3.5000-3.9999

This scholastic recognition is announced early by the Dean of Students in the following semester.

Students with a cumulative GPA of 3.5 or higher will be given special recognition during graduation ceremonies for their outstanding achievements. Honors are also noted on the student’s official transcript.

Honors Program
The WITCC Honors Program consists of intensified course instruction. Faculty and students select a project within the scope of the course for further research or performance. The student completes the project under the tutorial leadership of the course instructor. The student must also achieve a grade of “A” in the class to receive Honors (H) recognition on the transcript and at graduation.

Phi Theta Kappa Honor Society
WITCC students can earn scholastic recognition through membership in Phi Theta Kappa (PTK), the honor society for two-year colleges. The College chapter, Beta Zeta Mu, provides opportunities for campus and community service, leadership development, and scholarships. Students who qualify for membership, join, and maintain eligibility may wear the PTK gold stole at graduation and have the PTK seal affixed to their diplomas.

The PTK member becomes part of the international organization that offers national scholarships, a study abroad program, and opportunities for honors study.

To be eligible for membership, WITCC students must be in an associate degree program and have earned 12 credit hours or more with a GPA of 3.5 or higher. For further information about Phi Theta Kappa, phone (712) 274-8733, ext. 2884.

Academic Awards
Western Iowa Tech Community College grants Degrees, Diplomas and Certificates to those individuals who successfully complete programs of study in Liberal Arts, Science, Business, Vocational, Technical and Health Sciences.

General Education
Philosophy
Western Iowa Tech Community College’s general education provides breadth of learning to the community college experience. General Education imparts common knowledge, promotes intellectual inquiry, and stimulates the examination of different perspectives, thus enabling people to function effectively in a global and changing world.

General Education is not directly related to an individual student’s technical, vocational, or professional field, but prepares a student to meet personal, social, and lifelong learning needs.

Goals
Upon successful completion of any degree program, the student should be able to:

1. Communicate effectively
   a. Utilize current information technology specific to the discipline/program
   b. Write and/or speak using organized, clear and grammatically correct language, appropriate to purpose and audience

2. Reason quantitatively, and/or qualitatively
   a. Demonstrate mathematical concepts including data analysis and interpretation, use of formulas, etc.
   b. Summarize participant observations, focus groups, open-ended surveys, etc.

3. Think critically and demonstrate information literacy
   a. Identify and locate information through application of relevant research
   b. Evaluate information for credibility and relevancy
   c. Analyze, integrate and synthesize knowledge and draw conclusions from complex materials and facts
Graduation

Application for Graduation
Students who plan to receive a degree, diploma, or certificate must file an Application for Graduation with Enrollment Services by the filing deadline set for that semester. Submit the application on mywitcc.edu (Academics Tab).

Requirements for Graduation
All degrees, diplomas, and certificates earned at WITCC are based upon the successful completion of a specific prescribed program of study. Refer to the appropriate section in the College catalog for the requirements of each program. It is the student’s responsibility to check the transcript prior to the last semester of study and finalize any transfer of credit to ensure that all the requirements for graduation are met. Students may request a degree audit at any time.

Effective Catalog
The catalog in use during a student’s first enrollment in the College normally is used in determining completion of graduation requirements. The effective catalog may not be more than six years old at the time of graduation. A student may elect to meet the requirements of any subsequent catalog published during the six-year period, including the current year. This election must be made when the student files a graduation application.

A student who has a break in enrollment in the College for two or more consecutive semesters, excluding summer sessions, is readmitted to the College under the catalog program requirements in effect at the time of readmission. The College reserves the right to make necessary course and program changes in order to meet current educational standards.

When a decision is made to inactivate a program, students that currently have that program declared as their major will be notified. Those students will be given an opportunity to complete that program within the next year. Course’s will not continue to be offered beyond one year to complete inactivated programs.

Graduation Ceremony
Students are encouraged to participate in the formal commencement ceremony upon completion of their requirements for degree or diploma. Dates of the graduation ceremony are included in the College Calendar.

Transfer Agreements/Colleges and Universities
Western Iowa Tech Community College maintains formal transfer agreements that help ensure that associate degree graduates may transfer a maximum number of credits into a baccalaureate program. Final decisions regarding acceptance at the transfer institution rest solely with that institution. For example, a grade of "D" will rarely transfer if it is earned in a student’s major, and in certain cases, a “D” grade will not transfer under any circumstance. It is very important that students who plan to transfer after completing their studies at WITCC, consult the college of their choice as early as possible in their academic program.

In addition to the formal articulation agreements, many four-year institutions articulate courses with WITCC students upon evaluation of the student's transcript.

A list of current transfer agreements and links to transfer guides is available at www.witcc.edu/onestop/transferring.cfm

Guaranteed Quality of Education
Western Iowa Tech Community College believes in the quality of its faculty and staff, and in the quality of instruction and technical skill competencies the College provides to students. As an expression of confidence in this belief, WITCC has established guidelines to guarantee its graduates the technical skill competencies expected by employers and the transferability of baccalaureate oriented course credits to receiving four-year colleges and universities.

A copy of the complete guarantee statement is available on request from Enrollment Services.
# Defense Activity for Non-Traditional and Education Support (DANTES)/DSST Subject Standardized Tests* and WITCC Equivalent Courses

<table>
<thead>
<tr>
<th>Title</th>
<th>Min. Score</th>
<th>Credit Awarded</th>
<th>WITCC Equivalent Course</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MATHEMATICS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fundamentals of College Algebra</td>
<td>400</td>
<td>4</td>
<td>MAT 121 College Algebra</td>
</tr>
<tr>
<td>Principles of Statistics</td>
<td>400</td>
<td>3</td>
<td>MAT 156 Statistics</td>
</tr>
<tr>
<td><strong>SOCIAL SCIENCE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foundations of Education</td>
<td>400</td>
<td>3</td>
<td>EDU 210 Foundations of Education</td>
</tr>
<tr>
<td>Art of the Western World</td>
<td>400</td>
<td>3</td>
<td>ART 101 Art Appreciation</td>
</tr>
<tr>
<td>Human/Cultural Geography</td>
<td>400</td>
<td>3</td>
<td>GEO 121 World Regional Geography</td>
</tr>
<tr>
<td>Lifespan Developmental Psychology</td>
<td>400</td>
<td>3</td>
<td>PSY 121 Developmental Psychology</td>
</tr>
<tr>
<td>General Anthropology</td>
<td>400</td>
<td>3</td>
<td>ANT 105 Cultural Anthropology</td>
</tr>
<tr>
<td>Criminal Justice</td>
<td>400</td>
<td>6</td>
<td>CRJ 133 Constitutional Criminal Procedure &amp; CRJ 100 Introduction to Criminal Justice</td>
</tr>
<tr>
<td><strong>PHYSICAL SCIENCE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Astronomy</td>
<td>400</td>
<td>3</td>
<td>PHS 142 Principles of Astronomy</td>
</tr>
<tr>
<td>Health and Human Development</td>
<td>400</td>
<td>3</td>
<td>PEH 102 Health</td>
</tr>
<tr>
<td>Environment and Humanity: The Race to Save the Planet</td>
<td>400</td>
<td>3</td>
<td>ENV 949 Env Sci – Special Topics</td>
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<tr>
<td><strong>BUSINESS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Principles of Finance</td>
<td>400</td>
<td>3</td>
<td>FIN 130 Principles of Finance</td>
</tr>
<tr>
<td>Personnel/ Human Resource Management</td>
<td>400</td>
<td>3</td>
<td>MGT 170 Human Resource Management</td>
</tr>
<tr>
<td>Principles of Supervision</td>
<td>400</td>
<td>3</td>
<td>MGT 130 Principles of Supervision</td>
</tr>
<tr>
<td>Introduction to Business</td>
<td>400</td>
<td>3</td>
<td>BUS 102 Introduction to Business</td>
</tr>
<tr>
<td>Personal Finance</td>
<td>400</td>
<td>3</td>
<td>FIN 121 Personal Finance</td>
</tr>
<tr>
<td><strong>APPLIED TECHNOLOGY</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical Writing</td>
<td>400</td>
<td>3</td>
<td>COM 723 Workplace Communications</td>
</tr>
<tr>
<td><strong>HUMANITIES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethics in America</td>
<td>400</td>
<td>3</td>
<td>PHI 105 Introduction to Ethics</td>
</tr>
<tr>
<td>Introduction to World Religion</td>
<td>400</td>
<td>3</td>
<td>REL 101 Survey of World Religions</td>
</tr>
<tr>
<td>Principles of Public Speaking (Speech Required)*</td>
<td>400</td>
<td>3</td>
<td>SPC 112 Public Speaking</td>
</tr>
</tbody>
</table>

* In addition to a minimum score of 400 on the multiple-choice test, an examinee must also receive a passing grade on the recorded speech.
# College-Level Placement Tests (CLEP) Subject Examinations and WITCC Equivalent Courses

<table>
<thead>
<tr>
<th>Department and CLEP Test</th>
<th>Min. Score</th>
<th>Credit Awarded</th>
<th>WITCC Equivalent Course</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>COMPOSITION AND LITERATURE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Literature</td>
<td>50</td>
<td>6</td>
<td>LIT 110 American Literature to Mid-1800’s AND</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>LIT 111 American Literature Since Mid-1800’s</td>
</tr>
<tr>
<td>Analyzing and Interpreting Literature</td>
<td>50</td>
<td>3</td>
<td>LIT 101 Introduction to Literature</td>
</tr>
<tr>
<td>English Literature</td>
<td>50</td>
<td>6</td>
<td>LIT 140 British Literature I AND</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>LIT 141 British Literature II</td>
</tr>
<tr>
<td>Freshman College Composition</td>
<td>51</td>
<td>3</td>
<td>ENG 105 Composition I</td>
</tr>
<tr>
<td>Humanities</td>
<td>50</td>
<td>3</td>
<td>HUM 101 Introduction to Humanities</td>
</tr>
<tr>
<td><strong>FOREIGN LANGUAGES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>College Level French Language</td>
<td>50</td>
<td>8</td>
<td>FLF 141 Elementary French I AND</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>FLF 142 Elementary French II</td>
</tr>
<tr>
<td>College Level German Language</td>
<td>50</td>
<td>8</td>
<td>FLG 141 Elementary German I AND</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>FLG 142 Elementary German II</td>
</tr>
<tr>
<td>College Level Spanish Language</td>
<td>50</td>
<td>8</td>
<td>FLS 141 Elementary Spanish I AND</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>FLS 142 Elementary Spanish II</td>
</tr>
<tr>
<td>College Level Spanish Language</td>
<td>63</td>
<td>6</td>
<td>FLS 231 Intermediate Spanish I AND</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>FLS 232 Intermediate Spanish II</td>
</tr>
<tr>
<td><strong>HISTORY AND SCIENCES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Government</td>
<td>50</td>
<td>3</td>
<td>POL 111 American National Government</td>
</tr>
<tr>
<td>History of the U.S. I: Early Colonization to 1877</td>
<td>50</td>
<td>3</td>
<td>HIS 151 U.S. History to 1877</td>
</tr>
<tr>
<td>American History II — 1865 to the Present</td>
<td>50</td>
<td>3</td>
<td>HIS 152 U.S. History Since 1877</td>
</tr>
<tr>
<td>Introduction to Educational Psychology</td>
<td>50</td>
<td>3</td>
<td>PSY 281 Educational Psychology</td>
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<tr>
<td>Introductory Psychology</td>
<td>50</td>
<td>3</td>
<td>PSY 111 Introduction to Psychology</td>
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<tr>
<td>Human Growth and Development</td>
<td>50</td>
<td>3</td>
<td>PSY 121 Developmental Psychology</td>
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<tr>
<td>Principles of Macroeconomics</td>
<td>50</td>
<td>3</td>
<td>ECN 120 Principles of Macroeconomics</td>
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<tr>
<td>Principles of Microeconomics</td>
<td>50</td>
<td>3</td>
<td>ECN 130 Principles of Microeconomics</td>
</tr>
<tr>
<td>Introductory Sociology</td>
<td>50</td>
<td>3</td>
<td>SOC 110 Introduction to Sociology</td>
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<tr>
<td>Western Civilization I: Ancient Near East to 1648 Modern</td>
<td>50</td>
<td>3</td>
<td>HIS 110 Western Civilization: Ancient to Early</td>
</tr>
<tr>
<td>Western Civilization II: 1648 to Present</td>
<td>50</td>
<td>3</td>
<td>HIS 111 Western Civilization: Early Modern to Present</td>
</tr>
<tr>
<td><strong>SCIENCE AND MATHEMATICS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calculus with Elementary Functions</td>
<td>50</td>
<td>3</td>
<td>MAT 211 Calculus I</td>
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<tr>
<td>College Algebra</td>
<td>50</td>
<td>3</td>
<td>MAT 121 College Algebra</td>
</tr>
<tr>
<td>Precalculus</td>
<td>50</td>
<td>3</td>
<td>MAT 129 Pre Calculus</td>
</tr>
<tr>
<td>Chemistry</td>
<td>50</td>
<td>4</td>
<td>CHM 122 Introduction to General Chemistry</td>
</tr>
<tr>
<td><strong>BUSINESS</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Information Systems and Computer Applications</td>
<td>50</td>
<td>3</td>
<td>BUS 179 Information Systems</td>
</tr>
<tr>
<td>Principles of Management</td>
<td>50</td>
<td>3</td>
<td>MGT 101 Principles of Management</td>
</tr>
<tr>
<td>Principles of Accounting</td>
<td>50</td>
<td>8</td>
<td>ACC 131 Principles of Accounting I AND</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ACC 132 Principles of Accounting II</td>
</tr>
<tr>
<td>Introductory Business Law</td>
<td>51</td>
<td>3</td>
<td>BUS 185 Business Law I</td>
</tr>
<tr>
<td>Principles of Marketing</td>
<td>50</td>
<td>3</td>
<td>MKT 110 Principles of Marketing</td>
</tr>
</tbody>
</table>

* Scaled scores are equivalent to the 50th percentile (national norms).
** A single Spanish or German test covers material normally learned during the first four semesters of college level study. The amount of credit received depends upon test scores as indicated.
Test-Out Opportunities

**Business Department Test-Outs:**
- ACC 261 Income Tax Accounting
- ADM 105 Introduction to Keyboarding
- ADM 131 Office Calculators
- BCA 115 Internet Basics

Tests for the above courses may be taken once each semester in the Testing Center. Contact the Testing Center for an appointment.

**General Test-Out:**
- SDV 153 Pre-employment Strategies

The test-out is given only once each semester.

**Math Department Test-Out:**
- MAT 772 Applied Math

The test-out of MAT 772 is available anytime before the term begins and closes 14 calendar days after the term begins. Students must coordinate the MAT 772 test-out directly with the Comet Learning Center staff. Students may attempt the MAT 772 test-out only once. See the Math Department or the Comet Learning Center for more details such as procedure to sign up, costs, and times available to test.

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Advanced Placement (AP) Examinations by the College Board and WITCC Equivalent Courses

<table>
<thead>
<tr>
<th>AP Examination</th>
<th>Min. Score</th>
<th>Equivalent WITCC Course</th>
<th>Credit Hours Awarded</th>
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<tbody>
<tr>
<td><strong>ART</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Art History</td>
<td>3</td>
<td>ART 203</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>ART 203 and 204</td>
<td>6</td>
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<tr>
<td>Studio Art – Drawing</td>
<td>3</td>
<td>ART 133</td>
<td>3</td>
</tr>
<tr>
<td><strong>BIOLOGY</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biology</td>
<td>3</td>
<td>BIO 116 and BIO 117</td>
<td>8</td>
</tr>
<tr>
<td><strong>CHEMISTRY</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Chemistry</td>
<td>4</td>
<td>CHM 166</td>
<td>5</td>
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<tr>
<td></td>
<td>5</td>
<td>CHM 176</td>
<td>10</td>
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<tr>
<td><strong>ECONOMICS</strong></td>
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<tr>
<td>Macroeconomics</td>
<td>3</td>
<td>ECN 120</td>
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<tr>
<td>Microeconomics</td>
<td>3</td>
<td>ECN 130</td>
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<tr>
<td><strong>ENGLISH</strong></td>
<td></td>
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<tr>
<td>English Language</td>
<td>3</td>
<td>ENG 105</td>
<td>3</td>
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<tr>
<td>English Literature</td>
<td>3</td>
<td>LIT 101</td>
<td>3</td>
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<tr>
<td><strong>FOREIGN LANGUAGE</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>French Language</td>
<td>3</td>
<td>FLF 141 and 142</td>
<td>8</td>
</tr>
<tr>
<td>German Language</td>
<td>3</td>
<td>FLG 141 and 142</td>
<td>8</td>
</tr>
<tr>
<td>Spanish Language</td>
<td>3</td>
<td>FLS 141 and 142</td>
<td>8</td>
</tr>
<tr>
<td>Spanish Literature</td>
<td>4</td>
<td>FLS 141, 142, 231, 232</td>
<td>14</td>
</tr>
<tr>
<td><strong>GOVERNMENT and POLITICS</strong></td>
<td></td>
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<tr>
<td>American Government</td>
<td>3</td>
<td>POL 111</td>
<td>3</td>
</tr>
<tr>
<td>Comparative Government</td>
<td>3</td>
<td>POL 125</td>
<td>3</td>
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<tr>
<td><strong>HISTORY</strong></td>
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<tr>
<td>European History</td>
<td>3</td>
<td>HIS 110 and 111</td>
<td>6</td>
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<tr>
<td>American History</td>
<td>3</td>
<td>HIS 151 and 152</td>
<td>6</td>
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<tr>
<td>Human Geography</td>
<td>3</td>
<td>GEO 121</td>
<td>3</td>
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<tr>
<td><strong>MATHEMATICS</strong></td>
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<tr>
<td>Calculus AS</td>
<td>4</td>
<td>MAT 211</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>MAT 211 and 217</td>
<td>10</td>
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<tr>
<td>Statistics</td>
<td>3</td>
<td>MAT 157</td>
<td>4</td>
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<td><strong>PHYSICS</strong></td>
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<td>Physics B</td>
<td>3</td>
<td>PHY 162</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>PHY 162 and 172</td>
<td>8</td>
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<tr>
<td><strong>PSYCHOLOGY</strong></td>
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<td>Psychology</td>
<td>4</td>
<td>PSY 111</td>
<td>3</td>
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<tr>
<td><strong>COMPUTERS</strong></td>
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<tr>
<td>Computer Science</td>
<td>3</td>
<td>CSC 110</td>
<td>3</td>
</tr>
</tbody>
</table>
Student Services and Activities

Western Iowa Tech Community College offers a variety of student services. Professionally trained staff and counselors are accessible to all students.

Career Services

Career Planning
The Career Services Center is located in Enrollment services and is available to all WITCC prospective and current students. Career Exploration sessions assist individuals who are undecided about their career options to find direction in a career path. Resume writing, resume review, job search tips, interview tips, and live mock interviews are services available to students throughout the year.

Transfer Information
College catalogs and transfer information for four-year colleges and universities are located in Enrollment Services. Transfer representatives from regional colleges visit WITCC regularly to provide information to students pursuing a baccalaureate degree. Please ask for further details at the front desk in Enrollment Services.

Student Services at Branch Campuses
Arrangements for career counseling, tutoring, and other student services are available at the branch campuses upon request. Contact the Director at each branch campus as to how to access the requested services.

Student Housing and Residence Life
WITCC's student housing is located on the Sioux City Campus, within short walking distance of all campus buildings. Prairie Place and Bur Oak Suites offer private bedrooms in suite-style living quarters. The Sun Ridge Court offers apartment-style living. Students who live on campus are required to purchase a meal plan each semester. Please contact the student housing office at (712) 274-6417 for further details or questions.

Campus Bookstore
The WITCC Bookstore is located across from the Overlook Cafeteria. Students may purchase textbooks, supplies, clothing and novelty items at the bookstore or order them online for delivery or pick-up at bookstore.witcc.edu. Bookstore hours and return policies can also be found on the website.

Payment for bookstore merchandise is due at the time of the purchase. Accepted methods of payment are cash, check, VISA, MasterCard, and Discover. Students sponsored by an agency (JTP, DVRS, Promise Jobs, etc.) must have a written authorization from the agency before charges can be processed. Students receiving federal grants can charge against the balance remaining after tuition and fees. Sponsored students and students with federal grants can begin charging one week before the semester begins.

Rather than a physical textbook, some courses use digital content embedded into the course to provide an adaptive learning platform that minimizes the cost of the textbooks required for students. Costs of the digital content varies and is charged to the student through a course fee associated with the course. There is no tangible item that must be purchased through the bookstore.

If a student does not want to utilize this content, the student may opt-out and receive a refund on the charged fee. Opt-outs are only accepted within the first 10 days of the course and must be requested through the bookstore. Access to the digital materials are then removed and the student is responsible to find the required course materials by other means.

Book Return Policy
1. You MUST have your receipt for any returns.
2. Fall and Spring Semesters: Textbooks must be returned within two weeks from the start of class for a full refund. Summer Semester: Textbooks must be returned within one week from the start of class for a full refund. Textbooks must be in the same condition as when purchased for full refund. Books CANNOT be returned if written or highlighted in. Books with shrink wrap CANNOT be returned if removed from wrap.
3. Clothing must be returned within two weeks of the dated receipt and in new condition. Supplies cannot be returned.
4. Defective products should be returned immediately for refund or exchange.
5. A “Used Book Buyback” is usually held during the last week of each semester. Dates and times will be posted at all locations. Books are purchased for a “used book” wholesaler. Prices are based on national demands and resale value.

Student Activities
and Special Services

Student Senate
Student Senate is a campus-wide student-run organization composed of students working together to promote cooperation and communication among the administration, the faculty, and student body. Student Senate is responsible for all recreation, social, and entertainment events that occur. They plan and coordinate activities on- and off-campus such as movie nights, treat days, WITStock, and much more in Student Senate meetings. All students are welcome to participate.

Student Organizations and Clubs
Students are encouraged to participate in one or more of the many student organizations. Several are associated with particular academic programs of study. Hobby interest clubs are also available depending
on student interest. Each group must have a faculty advisor and must be chartered by the Student Senate.

**Student Activities**
The Student Activities Office plans and coordinates a variety of special activities that involve community service activities, music groups, comedians, picnics, dances, club sports, and various trips.

**Student Center**
A 40,000 square foot gymnasium and well-equipped fitness center are available for students and staff to use as well as rooms for classes and meetings.

**Student Insurance**
Western Iowa Tech Community College does not have a compulsory insurance plan, but the college recommends that students enroll in a voluntary group accident and/or health insurance plan, available through commercial insurance companies. If students are enrolled as a member of a family health or hospital related plan, students should check to see at what age that coverage ends.

**Counseling**
Group and individual counseling sessions for students who are questioning their career options or coping with personal issues are available with the college counselor located in Enrollment Services.

**Disability Services**
Persons with documented disabilities may request reasonable accommodations. The student should indicate the nature of the disability and identify specific needs and/or requested accommodations. The student is responsible for providing documentation of the disability.

Approved accommodations include modified adaptations; alternative testing, specialized study aids, color-coded materials, large print copies, and assistive technology may be made available as needed. The Disability Services Coordinator is located in Enrollment Services, Room A323, and can be reached by calling (712) 274-8733, ext. 3216.

The Kurzweil Reader is available to all WITCC students and is located in the WITCC Computer Lab. See College Policies, page 32 for additional information.

**Testing Center**
Types of tests administered:
- ALEKS Math Assessment (PPL)
- College Level Examination Program (CLEP) and Defense Activity for Non-Traditional Education Support (DANTES). These are national tests that can be taken to show proficiency in a subject and receive college credit for that topic.
- High School Equivalency Tests (HiSET®)
- VUE Tests
  - Cisco
  - Comp TIA
- Make-up tests for WITCC classes
- Online class tests
- Transportation Security Administration (TSA)
- Other community requested testing

**Assessment**
The ALEKS Math Assessment may be required of students entering General Studies programs and/or courses as well as those programs with designated ALEKS cut scores. Individual interpretation of the results is provided. Check with an Advisor for assessment requirements and referral to the Testing Center.

**Learning Achievement Center**
The Learning Achievement Center represents the heart of the campus. It contains Library Services, The Comet Learning Center, and the Open Computer Lab.

**Library Services**
- A collection consisting of more than 46,000 print and media items providing information in diverse formats;
- Subscriptions to hundreds of periodical titles and to local and regional newspapers;
- Reference assistance and bibliographic instruction;
- Worldwide interlibrary loan service;
- Patron privileges at all the Sioux City Library cooperative libraries with verification that you are a current WITCC student;
- Check out privileges at most libraries in Iowa with verification that you are a current WITCC student;
- Visit our Web site at www.witcc.edu/library for access to:
  - 36 online databases under the umbrella of 11 companies, with full text components;
  - Online and interactive encyclopedias;
  - More than 12,000 electronic books;
  - Quick access to electronic newspapers and Web sites verified to have accurate information available from our Web site.

**Comet Learning Center**
**Tutoring** The Comet Learning Center, located in the Learning Achievement Center, provides drop-in tutoring services in various subject areas for registered WITCC students. No appointment is necessary. Individual tutor schedules are posted each semester. The Comet Learning Center employs both peer and professional tutors. Tutoring services are offered free of charge to enrolled WITCC students.

**Supplemental Instruction** The Comet Learning Center coordinates Supplemental Instruction sessions for select courses each semester. These sessions take place outside of class time and offer students an opportunity to review important material in a group setting with a qualified Supplemental Instruction Leader (student who has previously mastered the course material). Students who participate in the free Supplemental Instruction sessions have historically outperformed other students in the class.
Computer Resources
- Computers and related technology are available to support the college curriculum and provide access to the Internet.
- A computer login account will be created for each student that enables them to use the college’s academic and system software for the duration of their classroom experience.
- Accounts for my.witcc.edu, the WITCC student portal, will also be created for each student upon registration. Students will be able to access all classroom related information, register for courses, send e-mail, find campus club information, College and community news, and much, much more!

High School Equivalency Diploma (HSED) Preparation
The HSED program is designed to improve literacy skill levels in reading, writing, math, problem solving, and other literacy skills. The HSED diploma is a goal of many of the adult learners. Learners progress at their own pace using a variety of resources including print materials and computer-aided instruction. HSED classes are located in A424.

English Language Learners (ELL)
The ELL program is designed to improve the skill levels of English language learners in speaking, listening, writing, and reading. Classes progress from basic through advanced English literacy. Classroom instruction, supplemented by computer-aided instruction, is competency-based with emphasis on life and employability skills.

ELL classes are located in the Corporate College, B152.

Special Programs
TRiO Student Support Services Program
TRiO Student Support Services is an equal opportunity, federally funded program designed to provide opportunities that will increase a student’s chances for success in college. Services offered through TRiO-SSS are available to all eligible participants free of charge. Students will receive the guidance and encouragement needed to successfully complete their studies at WITCC and transfer to the four-year college of their choice.

Services unique to TRiO Student Support Services students include:
- Summer Bridge Program for incoming freshmen
- Free tutoring, including computer-aided instruction
- Exposure to cultural events and experiences
- Campus visits to four-year institutions
- Transfer assistance
- Personal, academic, and financial aid advising
- Peer Mentoring Program

To find out if you are eligible, contact the TRiO Student Support Services program at WITCC at (712) 274-8733—Sioux City ext. 3247, Denison ext. 2636, Cherokee ext. 2416—and make an appointment to meet with one of the staff; or stop by the office, located in The Comet Learning Center.

WITCC also administers the TRiO Educational Talent Search and the Upward Bound TRiO programs. These programs help prepare middle school and high school youth for college.

Vocational Rehabilitation Services
The Division of Vocational Rehabilitation Services of the Iowa Department of Education assists individuals who have a physical or mental impairment which constitutes or results in a substantial impediment to employment for that individual.

Specific eligibility requirements are available from the Rehabilitation Counselor located in the Enrollment Services Office. For more information, contact the Vocational Rehabilitation Counselor at (712) 274-8733, ext. 1254.

Job Training Partners (JTP)/Workforce Investment and Opportunity Act (WIOA) Services
Job Training Partners administers the WIOA services in the Region 12 area in Iowa. The Workforce Investment and Opportunity Act (WIOA) programs serve low-income adults, dislocated workers, and disadvantaged, low-income youth. Participants can obtain assistance to earn a HSED; receive assistance in creating a quality resume, cover letter, and thank-you notes; receive personalized career development and job search assistance; and in some cases receive funding assistance to complete an educational program.

Educational programs must be completed within two years and the individual must be job ready at the completion of their education. Assistance is available to help with support services such as dependent care and transportation during an educational program. Job Training Partners’ staff provides individualized career development, case management, and employment services to participants who are enrolled in WIOA services. Low income adults and youth must reside in Region 12 in order to be eligible for services. Dislocated workers may be eligible for WIOA services if the employer from which they were dislocated is based in one of the five counties in Region 12. Under certain circumstances, WIOA services may be provided to a resident of Region 12 who was dislocated from an employer in a neighboring state.

Job Training Partners, which houses WIOA low income adult, dislocated worker, and youth services, is located in Room A325. You can reach Job Training Partners at (712) 274-6401.
Western Iowa Tech Community College students are both citizens and members of the academic community. As citizens, students enjoy the same freedom of speech, peaceful assembly, and the right to petition that other citizens enjoy. As members of the academic community, they are subject to the obligations which are theirs by virtue of this membership.

The College expects its students to conduct themselves in such a way as to reflect credit upon the institution they represent. There are two basic standards of behavior required by all students: a) They shall not violate any board policy, municipal, state, or federal law; b) nor interfere with or disrupt the orderly educational processes of the College. Students are not entitled to greater immunities or privileges before the law than those enjoyed by other citizens generally.

Western Iowa Tech Community College is an institution dedicated to helping students identify and achieve realistic goals through excellent educational opportunities. The administration and staff of the College promote responsible participation and high achievement as the goal for our students. In working toward this goal, the College acknowledges the rights of students. As a WITCC student you should be aware of and accept responsibility as an active, contributing member of the College.

This catalog is a document that explains policies and procedures identifying students’ rights and responsibilities. WITCC believes that all students have responsibilities in the areas of governance, curriculum, services, and conduct.

Student Senate

The Student Senate represents the student body in contact with faculty and administration. Representatives to the Student Senate are selected through an interview process. These representatives are the voting members of the Senate, providing the student body with a voice in college affairs. The Senate organizes and underwrites many of the special events planned for students.

Student Governance

Students are expected to know the lines of authority and communication in the college, division, and program or course in which they are enrolled.

Students can participate in Student Senate and selected College committees by attending meetings, sharing views, reporting back to constituents, gathering data and developing rationales for positions taken and requests presented. When representing a constituency, the student is responsible to the total student constituency rather than only themselves or a small interest group.

Students shall maintain confidentiality when appropriate and indicated.

The student should assume responsibility for his/her own thoughts, verbal and nonverbal communications, writings, and behavior.

Student Academic Responsibilities

Students are responsible for their own learning and development. They have a responsibility to be an active learner by attending class, completing class and laboratory assignments, and preparing in advance of the scheduled class session.

Students should participate through sharing learning experiences with peers, broadening their general education base, and transferring previous learning. Students should assume responsibility for fostering effective relationships with instructors and peers.

Students are expected to understand and maintain high standards of academic honesty. Before any formal action is taken against a student who is suspected of committing academic dishonesty, the instructor is encouraged to meet with the student to discuss the situation. If the instructor concludes that the student has committed academic dishonesty and can resolve the matter with the student through punitive grading, the case may be considered closed.

Examples of punitive grading include giving a lowered or failing grade for the assignment, having the student repeat the assignment or complete an additional assignment, or assessing a lower or failing grade for the course. The Academic Review Procedure offers recourse to a student who feels his/her grade has been reduced unfairly. Examples of academic dishonesty include, but are not limited to, the following:

1. Cheating. A student must not use or attempt to use unauthorized assistance, materials, information, or study aids in any academic exercise including, but not limited to, the following:
   a. Substituting on an exam or course for another student.
   b. Submitting a paper written by another person.
   c. Copying with or without the other person’s knowledge during an exam.
   d. Turning in a paper that has been obtained from a commercial research firm or internet site.
   e. Using unauthorized notes during an exam.
   f. Padding items on a bibliography.
   g. Accessing and/or altering exams or grade records.

2. Plagiarism. A student must not use the words and/or ideas of another, representing them as his/her own, without proper credit to the author or source.
3. Fabrication. A student must not falsify or invent any information or data in an academic exercise including, but not limited to, records or reports, laboratory results, and citations to the sources of information.

4. Dual Submission. A student is expected to submit work solely for a single course unless prior written permission of the instructor is obtained that addresses the nature of the changes required in that work before submission to a second course.

5. Facilitating Academic Dishonesty. A student must not intentionally or knowingly help or attempt to help another student to commit an act of academic misconduct.

Responsible Use of Services

Students are responsible for appropriate use of services provided by the College. This includes the following:

1. Knowledge of student, social and professional activities;
2. Participation in student, social and professional activities;
3. Seeking assistance when facing problems that interfere with educational success; and
4. Meeting financial obligations to WITCC and those incurred through student loan programs.

Student Code of Conduct

Western Iowa Tech Community College students are responsible to conduct themselves in a manner that maintains an educational environment conducive to learning. Students at WITCC are expected to conduct themselves as good citizens in the College community by respecting the rights and property of others.

All rules and regulations are in effect 24 hours a day at all WITCC facilities, including WITCC Student Housing. Regulations also apply for college-sponsored activities which are held off-campus.

The College reserves the right to change the rules regulating student conduct with appropriate notice to the student body.

Any person who commits, attempts to commit, or incites/aid others in committing any of the following acts of misconduct shall be subject to disciplinary procedures by the College:

1. Obstruction/disruption of teaching, administrative processes, disciplinary procedures, or any college authorized function/activity.
2. Unauthorized occupation/use of (or unauthorized entry into) any college facility.
3. Conduct which threatens or endangers the health/safety of any person on the campus or at any college authorized function/activity including, but not limited to, physical abuse, the threat of physical abuse, sexual abuse, and assault. This includes harm to self and others.
4. Theft, defacement, or damage to property belonging to the College or to any agency/person on the campus.
5. Interference with any lawful right of any person on the campus including the right of access to college facilities.
6. Setting a fire on campus without proper authorization.
7. Unlawful use or possession of alcohol or alcoholic beverages, non-prescription drugs; use or possession of firearms, ammunition; dangerous weapons, substances, or materials (except as expressly authorized by the College); or bombs, explosives, or explosive, incendiary devices prohibited by law.
8. Off-campus conduct which directly, seriously, and/or adversely disrupts or interferes with the educational or other function of the College.
9. Verbal abuse, humiliating treatment, or harassment of any person on the campus. (Also see Sexual and Gender Harassment Policy.)
10. Dishonesty in any form. This includes cheating, plagiarism, forgery, falsification of records, misrepresentation, and lying.
11. Unauthorized use of property belonging to the college or any agency/person on campus.
12. Smoking, the use of tobacco and the use of e-cigarettes are not allowed anywhere on campus. This includes buildings, parking lots, common areas, outdoor arenas, and any vehicle located on the school grounds, and including the perimeter area of fifty feet beyond such school grounds to which the public is invited or in which the public is permitted. Anyone caught smoking on campus will be fined. See the Student Handbook for a complete list of fines.
13. Violation of any local, state, or federal law as evidenced by conviction.
14. Gambling without specific authorization by the administration.
15. Failure to comply with directions of college personnel acting in the performance of their duties. This rule includes failure to identify oneself at the request of a college employee.
16. Disorderly, lewd, indecent, or obscene conduct.
17. Violation of college policies or regulations such as parking and guidelines for student events.
18. Failure to appear at a disciplinary hearing.
19. Minor children are not allowed to: attend classes with their parents, be in college work areas with their parents or be on campus unattended. These are safety and insurance issues for the college. Children may accompany their parents or guardians who are on WITCC campuses to register for class, to pick up and drop off class materials, and/or seek college information services.
Computer Conduct

College computer systems are provided by WITCC for use by students, faculty, and staff for the purpose of furthering the educational mission of the College. This includes course work, college-related educational endeavors, and business operations. Each user is expected to follow established computer conduct policies and not to interfere with or disrupt the orderly processes of WITCC resources. Users accept the responsibility for utilizing services in ways that are ethical, that demonstrate academic integrity and respect for others who share this resource. Users must follow all existing federal, state, and local laws as they relate to computer conduct.

Acts of misconduct which will be the cause for disciplinary action up to and including discharge, as well as possible legal and/or civil action:

1. Unauthorized copying of anything that is licensed or protected by a copyright. This includes, but is not limited to, any software (including operating systems, programs, applications, databases, or code), multimedia files (including music, movies, or audio), or text files.

2. "Computer hacking" (i.e. unwanted or unsolicited entry into a computer system). This includes, but is not limited to, successful acts of hacking, unsuccessful attempts, possession of the tools used for computer hacking, or running programs that attempt to identify passwords or codes.

3. Knowingly introducing a "computer virus" to a computer or network (i.e. a program – either harmless or damaging – which attaches itself to another program and/or has the capability to reproduce in order to infect other computers).

4. Gaining unauthorized access to information that is private or protected or attempting to do so. Willful damage or misuse of systems, applications, databases, code, or data. Attempting to gain network privileges to which you are not entitled.

5. Unauthorized alteration of system configuration. This includes, but is not limited to, interrupting programs that protect data or secure systems, or attempting to do so. Downloading and/or installing software, or attempting to do so.

6. Introducing or using profanity/obscenities on the network, including, but not limited to, the campus network, Internet, or any other communications configuration which is accessible by or connected to College computers or computer systems.

7. Using the network to conduct business or solicit services, and/or develop, introduce, or circulate inflammatory comments or subjects.

8. Sharing of assigned logins with anyone else for any reason. Unauthorized use of another person's login or attempting to do so. Unauthorized use of a generic login outside of the context for which that login was created. Each student/employee will be responsible for all activities under his/her assigned login.

9. Inappropriate or misuse of e-mail. This involves sending unsolicited e-mail (including junk mail, jokes, or chain letters) to users of the College's e-mail system that is of a non-business nature.

10. Installing unauthorized personal hardware or software to any computer or network.

Respectful Exchange of Ideas and Information

Computer systems and networks allow for a free exchange of ideas and information. This exchange serves to enhance learning, teaching, critical thinking, and research. While the constitutional right of free speech applies to communication in all forms, we encourage civil and respectful discourse. College policy and local, state, and federal law do prohibit some forms of communication, to include:

- obscenity, lewd, or sexually harassing images or text
- defamation
- advocacy directed to incite or produce lawless action
- threats of violence
- harassment based on sex, race, disability, or other protected status
- anonymous or repeated messages designed to annoy, abuse, or torment

Personal Responsibility

Each individual who is given a computer and/or e-mail account, or uses the computers and network resources made available by Western Iowa Tech Community College, must understand that you are accountable for the policies set forth in this document. In addition, users assume responsibility for:

- protection of your password
- reporting any breach of system security
- reporting unauthorized use of your account
- changing your password on a regular basis
- frequently making backup copies of your work to ensure against loss
- clearly label works and opinions as your own before they are widely distributed

Authority

The Information Technology department may access other's files for the maintenance of networks, computers, and storage systems. Data, information, and files stored in electronic form on college-owned equipment and/or transmitted across college-owned networks is the property of Western Iowa Tech, and no right to privacy can be assumed. Office staff may also routinely monitor and log usage data, such as network connection times, CPU and disk utilization for each user, security audit trails, and network loading. Data collected may be reviewed and further investigated should evidence of violation of policy or law occur. If necessary, staff may monitor the activities and files of specific users on the college computers and networks. Any staff member who believes such monitoring is necessary should discuss the problem and strategy for investigation with the executive director, Information Technology.
Any student who violates the policies set forth in this document is subject to disciplinary action as defined in the Students’ Rights and Responsibilities section of the Student Handbook. Faculty and staff who violate these policies are subject to disciplinary action as defined in the Employee Handbook. All violators may be subject to arrest according to local, state, and federal law.

**Academic Review Procedure**

Academic policies include, but are not limited to, admissions requirements for programs, specific program requirements for continuation in, and completion of a program, pre-requisites, and policies impacting the transcription of credit. A student who has concerns with a particular academic policy should informally consult with his/her academic advisor or academic dean/chair related to the policy to ensure understanding of the policy and provide resolution to the concern if appropriate. Every effort should be made to resolve the concern.

If unable to resolve the concern, many policies, such as program specific requirements, have departmental procedures outlined for review of student concerns. If so, the student should follow the steps outlined in those procedures of review. If the student’s concern is not resolved through that procedure or if no departmental procedure exists pertaining to the student’s concern, the formal Academic Review Procedure may be initiated by the student. Written requests and written responses shall be provided at each step. Timelines for response may be impacted by official college breaks and such impacts will be communicated with the student.

**Step 1:** Student will present the concern in writing to the appropriate Academic Dean, Chair or other administrator responsible for the area of concern. The written document should clearly indicate the student’s desire to formally appeal an academic policy, describe the student’s concern and specifically indicating the resolution requested from the student, along with any supporting documentation the student would like to provide. Upon receipt of the written concern, the Academic Dean, Chair or administrator will respond to the student within 7 official working days.

**Step 2:** If the concern is not resolved in Step 1, the student may provide a written request to the Dean of Instruction to convene the Appeals Committee. This request must be submitted within 10 calendar days of the Academic Dean, chair or administrator’s response in Step 1. The student should provide full written documentation of the concern as well as the student’s requested outcome should the appeal be granted. The student may personally appear before the committee if desired. Faculty and/or staff related to the concern of the appeal will also be made available to the committee. The Dean of Instruction will convene the Appeals Committee within 10 working days from the receipt of the request from the student.

The committee has no authority to make decisions, but rather makes recommendations to the Dean of Instruction or its designee for the appropriate resolution of the appeal. The Dean of Instruction or its designee shall have 7 working days to respond to the student from the date of the Appeals Committee meeting. The decision of the Dean of Instruction or its designee will be final.

**Grade Appeal Procedure**

A student who questions a final grade from a particular course should make every effort to meet with the faculty member involved to communicate his/her concerns and resolve those concerns in an informal manner. The syllabus for each course will provide an outline of the grading procedures for the course and should be referenced in dealing with these issues.

When unable to informally resolve a concern, a Grade Appeal Procedure is provided to students. A student may exercise the following procedures in sequence. Written requests and written responses shall be provided at each review step. Written responses may be given to the students in an electronic format. The Grade Appeal Procedure must be initiated within 45 calendar days of the posting of the final grade in the course. Please note that timelines outlined below for response to a student’s request will be based on the availability of faculty and administration impacted by official college breaks and non-contracted faculty days. Every attempt will be made to communicate timeline expectations with students making such requests.

**Step 1:** Within 45 calendar days of the posting of the final grade, the student will present in writing his/her concerns to the faculty member involved. The student should clearly indicate in that written concern that he/she is formally appealing the final grade received in the course. The student should document specifically his/her concerns related to the calculation of the grade and should also include the grade received as well as the grade expected, if the appeal would be granted. Upon receipt of the written concern, the faculty member will have 7 working days to respond to the student.

**Step 2:** If the concern is not resolved in Step 1, the student may appeal in writing to the appropriate Academic Dean or Chair. The appeal should provide full written documentation as outlined in Step 1. This appeal must be submitted to the Academic Dean or Chair within 10 calendar days of the response from the faculty member in Step 1. The Academic Dean or Chair shall respond to the student within 7 official working days of receiving the appeal.

**Step 3:** If the concern is not resolved in Step 2, the student may provide a written request to the Dean of Instruction to convene the Appeals Committee. This request must be submitted...
within 10 calendar days of the Academic Dean or Chair's response in Step 2. The student should provide full written documentation as outlined in Step 1 for the committee and may personally appear before the committee if desired. Faculty related to the grade appeal may also appear before the committee in its review. The Dean of Instruction will convene the Appeals Committee within 10 working days from the receipt of the request from the student.

The committee has no authority to make decisions, but rather makes recommendations to the Dean of Instruction or its designee for the appropriate resolution of the appeal. The Dean of Instruction or its designee shall have 7 calendar days to respond to the student from the date of the Appeals Committee meeting. The decision of the Dean of Instruction or its designee will be final.

**Due Process Procedure**

I. Statement of General Expectations and Definitions

A. Expectations: All students are expected and required to obey college policies, rules and regulations and not violate municipal, county, state or federal law. All students are expected to conduct themselves in such a manner as to show respect for properly constituted authority, exhibit and maintain integrity and honor in all matters related to the College and not interfere with or disrupt the orderly educational processes of the College.

B. Definition: In these procedures, unless the context otherwise requires:

1. “Authorized College Official” means an officer of the college who, by assigned responsibility, has authority to act in a particular situation. Frequently, but not exclusively, it will be the Vice President, Dean of Students, Code of Conduct Hearing Officer, or a person designated by them.

2. “Board” means the WITCC Board of Directors.

3. “Class day” means one day on which classes are in session (M-F). Registration, test, and orientation days are included.

4. “College property” or “college facilities” means property, real or personal, owned, leased, controlled, or managed by the College.

5. “Complaint” is a written statement which identifies an alleged violation and which sets forth the facts which constitute the violation.

6. “Dean of Students” means the Dean of Students, or his/her designee.

7. “Representative” means legal council, parent, or advisor.

8. “Student” means any person enrolled at the college, whether on a part-time or full-time basis, and includes a person accepted for admission to the College.

9. “President” means the Chief Executive Officer of the College.

10. “Violation” means any conduct, act, or omission to act, which violates a regulation, policy or administrative rule of the College or of the Board.

11. “Administrative disposition” refers to disciplinary action taken by the Dean of Students or his/her designee.

12. “Administrative Complainant” refers to the WITCC official who investigates the complaint and presents evidence of the violation at the hearing.

C. Immediate Suspension: The authorized college official may take immediate interim disciplinary action by suspending the student from classes or from the campus, or otherwise alter the status of a student. Causes for immediate interim suspension include, but are not limited to, the following:

1. ignoring a summons for a hearing.

2. an attempt of bodily harm to anyone on campus.

3. possession, use, sale, or purchase of illegal drugs on campus.

4. destruction or theft of college property or another person’s personal property.

5. possession of intoxicating beverages on campus.

6. any activities causing a major disruption or disturbance.

7. a violation of the student code of conduct which the administrator considers a major violation.

D. Prior to deciding whether to suspend a student, the authorized college official will give the student oral notice of the alleged violation and an opportunity to provide an immediate response to the allegation. Normally, within three (3) class days of the action of immediate interim suspension, the student will be summoned by the Dean of Students or designee. However, the Dean of Students or designee, at his or her discretion, may postpone this meeting for as much as three (3) additional class days. The Dean of Students or designee will give the student written notice of the alleged violation and an opportunity to provide an immediate response to the allegation. The Dean of Students or designee will:

1. dismiss the allegation; or

2. decide the alleged violation did occur and make an administrative disposition to impose a penalty as described in Section III.

If the suspended student received a favorable administrative disposition or favorable hearing, the student shall be permitted to make up class work required for satisfactory completion of a course or courses begun prior to the beginning of the disciplinary process.
E. Disciplinary Removal From Class: An instructor may remove a student from class for disciplinary reasons. Prior to deciding whether to remove a student from class, the instructor will give the student oral notice of the alleged violation and an opportunity to provide an immediate response to the allegation. The alleged violation must be reported in writing to the Dean of Students by close of day to review the allegation and to initiate disciplinary actions.

II. Disciplinary Proceeding
A. Initial Response: Upon notification of an alleged violation, the Dean of Students or designee will review the complaint within three class days and will:
   1. Dismiss the allegation as being unfounded or irrelevant.
   2. Summon the student for a conference and, after giving the student written notice of the alleged violation and an opportunity to provide an immediate response, then:
      a. dismiss the allegation; or
      b. decide the alleged violation did occur and make an administrative disposition to impose a penalty as described in Section III.

   The student may accept the administrative disposition or may request a formal hearing (IV). The request for a formal hearing must be made in writing to the Dean of Students within three days of the disposition.

III. Penalties: The Dean of Students or designee may impose one or more of the following penalties for a violation:
   A. Warning – a written reprimand to the student to whom it is addressed.
   B. Disciplinary Probation – a warning indicating that further violations may result in suspension. Disciplinary probation may be imposed for a period of up to two (2) semesters. At the completion of the period of probation, the student must meet with the Dean of Students who will determine whether the student will be removed from probation or whether the probationary period will be continued, and if so, for what period of time.
   C. Restitution – reimbursement for damage to or misappropriation of property. Reimbursement may take the form of appropriate service to repair or otherwise compensate for damages.
   D. Suspension of Rights and Privileges – a penalty which may impose limitations or restrictions to fit the particular case.
   E. Suspension of Eligibility for Official Extra-Curricular Activities: prohibits, during the period of suspension, the student on whom it is imposed from joining a registered student organization, taking part in a registered student organization’s activities, or attending its meetings or functions, and from participating in an official extra-curricular activity.
   F. Community Service: A student may be required to perform service to the College or the community in lieu of another penalty.
   G. Suspension from the College for less than the remainder of the term prohibits, during the period of suspension, the student on whom it is imposed from entering College property except in response to a request of the College and from registering, either for credit or non-credit work, at the College.

Penalties H. and I regarding Dismissal from the College will only be imposed upon conferral with the President:
   H. Dismissal from the College for a period which shall not be less than the remainder of the term and shall not exceed one (1) calendar year.
      1. Before returning to the College, student will be required to put, in writing, a request to return and schedule a hearing with College Authorities. Final determination will rest with the decision of the College.
   I. Permanent dismissal from the College. This includes credit classes, non-credit classes, seminars, workshops, and other such activities.

IV. Formal Hearing
   A. The Dean of Students shall have written notice served upon the student and the complainant, which notice shall set forth the date, time, and place for the hearing, as well as the nature of the alleged violation. The hearing date shall be not less than five (5) nor more than ten (10) class days after service of the notice unless the student makes written acknowledgment of the notice and written consent to the scheduling of a hearing at a different time. Notice may be hand delivered to the student. In the student's absence from the campus, notice mailed to the student's last known address by ordinary mail shall be deemed adequate. Notice by mail will be deemed given on the date of mailing.
   B. For good cause, the Dean of Students may postpone the hearing for as much as three (3) class days.
   C. The notice shall direct the student to appear before the Dean of Students on the date and at the time specified, and shall advise the student that she/he has a right to each of the following:
      1. To have a private hearing.
      2. To have, at the student's expense, the presence of a representative.
      3. To confront and cross-examine witnesses against him/her who appear at the hearing.
      4. To cause the Dean of Students to order witnesses to appear on his/her behalf. Only college students and employees are subject to being ordered to appear to testify. The college is not responsible for witnesses who fail to appear or who refuse to testify, and the failure of a witness to appear or to testify will not affect the hearing.
      5. To allow the student to examine documents presented in evidence against the student.

   a. decide the alleged violation did occur and make an administrative disposition to impose a penalty as described in Section III.

   The student may accept the administrative disposition or may request a formal hearing (IV). The request for a formal hearing must be made in writing to the Dean of Students within three days of the disposition.

III. Penalties: The Dean of Students or designee may impose one or more of the following penalties for a violation:
   A. Warning – a written reprimand to the student to whom it is addressed.
   B. Disciplinary Probation – a warning indicating that further violations may result in suspension. Disciplinary probation may be imposed for a period of up to two (2) semesters. At the completion of the period of probation, the student must meet with the Dean of Students who will determine whether the student will be removed from probation or whether the probationary period will be continued, and if so, for what period of time.
   C. Restitution – reimbursement for damage to or misappropriation of property. Reimbursement may take the form of appropriate service to repair or otherwise compensate for damages.
   D. Suspension of Rights and Privileges – a penalty which may impose limitations or restrictions to fit the particular case.
   E. Suspension of Eligibility for Official Extra-Curricular Activities: prohibits, during the period of suspension, the student on whom it is imposed from joining a registered student organization, taking part in a registered student organization's activities, or attending its meetings or functions, and from participating in an official extra-curricular activity.
   F. Community Service: A student may be required to perform service to the College or the community in lieu of another penalty.
   G. Suspension from the College for less than the remainder of the term prohibits, during the period of suspension, the student on whom it is imposed from entering College property except in response to a request of the College and from registering, either for credit or non-credit work, at the College.

Penalties H. and I regarding Dismissal from the College will only be imposed upon conferral with the President:
   H. Dismissal from the College for a period which shall not be less than the remainder of the term and shall not exceed one (1) calendar year.
      1. Before returning to the College, student will be required to put, in writing, a request to return and schedule a hearing with College Authorities. Final determination will rest with the decision of the College.
   I. Permanent dismissal from the College. This includes credit classes, non-credit classes, seminars, workshops, and other such activities.

IV. Formal Hearing
   A. The Dean of Students shall have written notice served upon the student and the complainant, which notice shall set forth the date, time, and place for the hearing, as well as the nature of the alleged violation. The hearing date shall be not less than five (5) nor more than ten (10) class days after service of the notice unless the student makes written acknowledgment of the notice and written consent to the scheduling of a hearing at a different time. Notice may be hand delivered to the student. In the student's absence from the campus, notice mailed to the student's last known address by ordinary mail shall be deemed adequate. Notice by mail will be deemed given on the date of mailing.
   B. For good cause, the Dean of Students may postpone the hearing for as much as three (3) class days.
   C. The notice shall direct the student to appear before the Dean of Students on the date and at the time specified, and shall advise the student that she/he has a right to each of the following:
      1. To have a private hearing.
      2. To have, at the student's expense, the presence of a representative.
      3. To confront and cross-examine witnesses against him/her who appear at the hearing.
      4. To cause the Dean of Students to order witnesses to appear on his/her behalf. Only college students and employees are subject to being ordered to appear to testify. The college is not responsible for witnesses who fail to appear or who refuse to testify, and the failure of a witness to appear or to testify will not affect the hearing.
      5. To allow the student to examine documents presented in evidence against the student.
6. To remain silent during the hearing.

V. Preliminary Matters

A. Alleged violations arising out of the same occurrence, or out of the same series of occurrences against more than one student, may be heard together. Either at the option of the Dean of Students or upon request by one of the students or the complainant, separate hearings shall be held.

B. Alleged violations by one student arising out of the same transaction or occurrence or out of the same series of transactions or occurrences shall be heard together. Alleged violations by one student arising out of unrelated transactions or occurrences may be heard together with the written consent of the student.

C. At least three (3) class days before the hearing date, the student shall in writing furnish the Dean of Students with:
   1. The name of each witness she/he wants ordered to appear.
   2. Any objection that, if sustained, would postpone the hearing.
   3. The name of representative, if any, who is to appear with him or her.
   4. A request for a private or separate hearing and the ground for such request.
   5. A request to exercise any of the student’s other rights stated in the notice.

D. When the hearing is held by consent of the student less than five (5) days after service of notice or for other good cause shown, the student may submit the information described in paragraph C-2 immediately above at any time before the hearing terminates.

E. If, after notice has been provided to the student as required by these procedures, the student fails to appear, the hearing will be canceled and the previous administrative disposition will be upheld.

F. Procedure
   1. The hearing shall be closed to the public unless otherwise requested by the student.
   2. The hearing shall proceed generally as follows:
      3. The name of representative, if any, who is to appear with him or her.
         a. The Dean of Students shall read the complaint.
         b. The Dean of Students shall inform the student of his/her rights, as stated in the notice of hearing.
         c. The administrative complainant shall present evidence in support of the alleged violation.
         d. The student may present his/her defense.
         e. At the request of the student or the administrative complainant, witnesses shall not be present before time they are called to testify.
         f. The administrative complainant and the student may present rebuttal evidence, and shall have the right to make argument.
         g. The authorized college official shall state in writing each finding of a violation and the penalty determined and inform the student of the findings and impose the penalty, if any. This action shall occur no more than five (5) class days after conclusion of the hearing.

G. Evidence
   1. Rules of evidence shall not apply to administrative hearings, and the Dean of Students may admit and give effect to evidence that possesses probative value and is commonly accepted in the conduct of a reasonable person. Privileged communications between a student and a member of the professional staff where such communications were made in the course of performances of official duties and when the matters discussed were understood by the staff member and the student to be confidential, as well as those communications which are privileged by law shall not be introduced as evidence before the Dean of Students without the written permission of the student.
   2. A student is presumed innocent until the administrative complainant has proved that more likely than not a violation did occur.
   3. All evidence offered during the hearing shall be made a part of the hearing record. Documentary evidence may be included in the form of copies, extracts or abstracts, or by specific reference. Real evidence may be photographed or described.

H. Record
   1. Right To Appeal
      a. The student may appeal the decision of Dismissal (III – H & I ) to the President.
      b. Appeals must be made by giving written notice to the Dean of Students on or before the third (3) class day after the day the decision or action is served on the student or mailed to the student’s last known address by ordinary mail. The notice of appeal shall contain the student’s name, the date of the decision or action, the name of his/her representative, if any, and a simple request for appeal.
      c. Notice of appeal timely given suspends the imposition of penalty until the appeal is finally decided. However, a notice of appeal does not affect an immediate suspension imposed under Section I (C) of these procedures. An immediate suspension will continue in effect until an appeal is finally decided.
WITCC is committed to providing an atmosphere that encourages scholarship, the robust exchange of ideas and interactions with others in a safe environment.

WITCC reserves the right to deny admission or place conditions on admission or the enrollment of any applicant, student, or former student if WITCC determines that such person presents an unreasonable risk to the safe and orderly campus environment.

WITCC also reserves the right to deny a student’s application for residence hall housing, or remove a student from a residence hall, if WITCC determines that the student presents an unreasonable risk of harm to others in the residence hall.

Policy of Nondiscrimination

It is Western Iowa Tech Community College’s policy not to discriminate against individuals with disabilities and to provide reasonable accommodation(s) to qualified applicants and students. Although this policy primarily describes accommodations that allow persons with disabilities to apply for admission and participate in education programs, courses, services and activities, the policy also applies to accommodations that would allow applicants or students with disabilities to enjoy equal benefits and privileges of education as enjoyed by other applicants or students.

Scope of Potential Reasonable Accommodations

A. Upon request, and with appropriate documentation, Western Iowa Tech Community College is prepared to adjust the admissions process or the educational environment to make reasonable accommodations to qualified applicants and students with disabilities.

B. Upon request and with approved documentation, reasonable accommodations may include but are not limited to: a) making existing academic facilities used by students and the public readily accessible to and usable by individuals with disabilities; b) adjusting when and how academic or technical requirements are met or performed; c) adjusting admission and performance tests, educational materials, or policies; d) allowing readmission upon review and evaluation; e) providing or arranging counseling services; f) providing readers, interpreters, written materials in alternative formats, and other auxiliary aids and services; g) adjusting the manner and method of instruction and testing; h) allowing applicants or students to make use of equipment or devices that the College is not required to provide. The College does not assume coordination or financial responsibilities for attendant care services.

C. Each request will be evaluated on a case-by-case basis. An accommodation is not considered reasonable when: a) the accommodation would fundamentally alter the nature of the program, course, service, and/or activity; b) the individual is not otherwise qualified to meet the academic and technical standards required for admission or participation in an education program, course, service and/or activity; c) the accommodation would cause an undue financial or administrative burden on the College; or d) the individual poses a direct threat to the health or safety of self, or others.

D. Reasonable accommodation does not negate requirements for successful completion of a program, course, service, and/or activity, adherence to generally acceptable standards of behavior and the College’s code of conduct, not adherence to administrative and faculty directions and instructions.

Request for Reasonable Accommodation

A. If an accommodation would result in any expense to the College, the applicant or student must submit a formal request to the Disability Services Coordinator describing the nature of the requested accommodation. The applicant or student should indicate the nature of the disability and identify specific needs or limitations. The applicant or student is responsible for providing documentation of the disability to the Disability Services Coordinator.

B. The applicant or student shall identify any specific accommodations that have been successful in the past and any equipment, aids, or services that the applicant or student is willing to provide and utilize.

Applicants or Students Who Refuse Reasonable Accommodation

Applicants and/or students with disabilities have the right to refuse an offer of an accommodation. If the refusal of an offer of an accommodation results in the individual’s inability to perform or meet the admission or participation standards for a program, course, service, or other activity, then that individual will not be considered
Discrimination
Sexual Harassment, Americans With Disabilities Act Compliance

WITCC complies with Title IX of the Education Amendments of 1972, Title VI of the Civil Rights Act of 1964, section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, as well as other applicable federal, state, and local laws.

The person charged with monitoring and coordinating Equal Opportunity and Affirmative Action matters, as well as compliance with the aforementioned laws is the Equal Employment Opportunity Administrator/ADA Coordinator. She is located in Room A242 or may be contacted by phone at (712) 274-8733, ext. 1220.

Sexual and Gender Harassment

WITCC is pledged to maintain an environment conducive to work and study for staff and students. That environment must be free of sexual and gender harassment and all forms of sexual intimidation and exploitation. Such behavior, including (1) suggestions that academic reprisals or rewards will follow refusal or granting of sexual favors or (2) behavior which creates an intimidating or hostile academic environment constitutes gross misconduct and will not be tolerated.

Complaints regarding sexual and gender harassment can be directed to the Sexual Harassment Conciliator. She is located in Room A242 or may be contacted by phone at (712) 274-8733, ext. 1220.

Discrimination

It is the policy of Western Iowa Tech Community College not to discriminate on the basis of race, creed, color, sex, national origin, religion, age, disability, sexual orientation, gender identity, actual or potential parent, family or marital status in its programs, activities, or employment practices as required by federal and civil rights regulations.

If you have questions or complaints, please reference https://www.witcc.edu/board/policies.cfm or call (712) 274-6400 ext. 1220, and/or email brenda.bradley@witcc.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.

Individuals using assistive technology (such as a screen reader, Braille reader, etc.) who experience difficulty accessing information on this web site, should send an email to the Webmaster at webmaster@witcc.edu. The e-mail should include the nature of the accessibility problem and the individual's e-mail address for a response. If the accessibility problem involves a particular Web page, the message should include the URL (Web address) of the page. We will contact individuals having accessibility problems within three business days to assist them and to provide them with the information being sought.

Discipline

Students are to maintain orderly conduct that is consistent with an educational environment. An instructor may remove a student from class for disciplinary reasons. The violation is then reported to the Dean of Students for review and action. Discipline is the responsibility of the Dean of Students, who has the authority to act on any violation and take whatever action is deemed appropriate. The Dean of Students will review all complaints and may dismiss the allegations, make an administrative disposition, or conduct a formal hearing. Possible disciplinary actions, as well as procedures for disciplinary due process, can be found in the Student Handbook and on pages 28–32 of this catalog.

Disability

Once a student's file is completed with the Coordinator of Disability Services will provide a written 504 plan that the student will take to instructors which verifies the student's eligibility and includes recommendations for appropriate accommodations. It is the student's responsibility to discuss the 504 accommodation plan with each instructor as early in the semester as possible. Instructors provide their acknowledgement of the accommodation plan with their signature. If the classroom instructor is unable to provide reasonable accommodation or if the student's request is refused by the instructor, the student may request advocacy services from the ADA Coordinator located in Room A242 or contacted by phone at (712) 274-8733, ext. 1220, or the Coordinator for Disability Services located in Room A323 or may be contacted by phone at (712) 274-8733, Ext. 3216.

The Federal Family Educational Rights and Privacy Act (FERPA)

Western Iowa Tech Community College complies with the provisions of the Federal Family educational Rights and Privacy Act of 1974, as amended (“FERPA”). Under the Act, each student has the right to inspect and review their student records and request the amendment of inaccurate or misleading student records or request the amendment of student records to ensure they are not otherwise in violation of the student's privacy or other rights.
FERPA also covers other information about student records that the College maintains, including, but not limited to, who has access to them, and for what purposes access is granted. Generally, FERPA allows the College to release personally identifiable information contained in student records with the student’s consent and without the student’s consent in some circumstances. FERPA also permits the College to release “directory information” without the student’s consent. Directory information consists of: Student name, student address and telephone number, date and place of birth, major/field of study, level of education, dates of attendance, degrees and honors earned and dates, and the most recent educational agency or institution attended prior to enrollment at the College.

Students who wish to restrict access to their records may do so in the Admissions Office. This same office can provide WITCC policy statements and guidelines for access or restricting of access to student records.

If a student feels the College has failed to comply with any provision of FERPA or its regulations, the student may file a complaint with the:

Family Policy Compliance Office  
U.S. Department of Education  
400 Maryland Avenue SW  
Washington, D.C. 20202)

Drug-Free College Community

The College shall endeavor to provide a healthy, safe, and secure educational environment. It is the policy of the Board that within the powers of the college, reasonable measures shall be taken to establish and maintain a drug-free college community as required by the Drug-Free Workplace Act of 1988, the Drug-Free Schools and Communities Act/Amendment of 1988 (PL101-226), and applicable Iowa statutes.

Smoke-Free and Tobacco-Free Campus

Smoking, the use of tobacco and the use of e-cigarettes are not allowed anywhere on campus. This includes buildings, parking lots, common areas, outdoor arenas, and any vehicle located on the school grounds, and including the perimeter area of fifty feet beyond such school grounds to which the public is invited or in which the public is permitted. Anyone caught smoking on campus will be fined. See the Student Handbook for a complete list of fines.

College Credit Programs

**Associate of Arts Degree**

Plans of Study Include:
- Accounting Emphasis
- Addictions Counseling Emphasis
- Agriculture Transfer Emphasis
- Art and Design Emphasis
- Business Administration Emphasis
- Education Emphasis
- Education – Early Childhood Emphasis
- English Emphasis
- History Emphasis
- Music Emphasis
- Political Science Emphasis
- Psychology Emphasis
- Social Work Emphasis
- Sociology Emphasis

**Associate of Science Degree**

Plans of Study Include:
- Biology Emphasis
- Chemistry Emphasis
- Mathematics Emphasis
- Sports Medicine - Athletic Training Emphasis
- Sports Medicine - General Studies Emphasis

**Associate of Applied Science Degree**

- Accounting Specialist
- Administrative Assistant–Medical
- Administrative Office Management
- Agribusiness Technology
- Agriculture Management
- Audio Engineering Technician
- Auto Collision Repair Technology
- Automotive Technology
- Band Instrument Repair
- Broadcasting and Multimedia Journalism
- Business Management
- Culinary Arts
- Cyber Security and Digital Crime
- Digital Marketing
- Early Childhood Education
- Emergency Medical Services – Paramedic
- Fire Fighter/Paramedic
- Graphic Design
- Hospitality Management
- Human Resources Management
- Mechanical Engineering Technology
- Networking Administration and Security
- Nursing (ADN)
• Paralegal/Legal Assistant
• Physical Therapist Assistant
• Police Science – Corrections
• Police Science Technology
• Professional Photography
• Robotics and Automation
• Surgical Technology
• Technical Business Management
• Technical Studies
• Video Game Design
• Video and Media Production
• Welding Technology

Diplomas Listing

• Accounting
• Administrative Office Support
• Agriculture
• Air Conditioning, Heating, and Refrigeration
• Audio Production Assistant
• Auto Body Refinishing
• Auto Body Structural Repair
• Auto Mechanic
• Bookkeeping and Office Support
• Certified Personal Trainer
• Construction
• Computer Support Technician
• Dental Assisting
• Dental Assisting Part Time
• Early Childhood Studies
• Electrician
• Electromechanical Technician
• Entrepreneurship
• Fire Science
• Food Service
• Hospitality Operations
• Human Resources
• Industrial Drafting Technology
• Information Security Analyst
• Law Enforcement Advanced
• Legal Secretary
• Manufacturing
• Marketplace Design
• Medical Assistant
• Medical Coding Specialist
• Medical Scribe
• Medical Secretary
• Medical Transcriptionist
• Mobile Game and Application Developer
• Paralegal/Legal Assistant Advanced Standing
• Paralegal/Legal Assistant Advanced Standing - Part Time
• Paramedic
• Pharmacy Technician
• Plumbing Systems
• Practical Nursing
• Professional Photography Technician
• Veterinary Assistant
• Video and Media Production Assistant
• Video Game Artist
• Welding–Industrial

Certificates Listing

• Air Conditioning
• Auto Body Procedures
• Auto Body Repair
• Automotive Drive Train
• Automotive Electrical
• Automotive Painting
• Bookkeeping
• Carpentry
• Certified Personal Trainer
• Childcare Development – Infant/Toddler
• Childcare Development – Preschool
• Coaching
• Concrete Specialties
• Cost Accounting
• Drywall
• Electromechanical Specialist
• Emergency Medical Responder
• Emergency Medical Technician
• Emergency Medical Technician Advanced
• Entrepreneurship Concepts
• Entry-Level Firefighter
• Expanded Functions Dental Assistant
• Food Preparation
• Heating
• Health Information Technology
• Help Desk Technician
• Hospitality Operation Concepts
• Interior Finishing
• IV Therapy Concepts and Review
• Medication Aide
• Medical Scribe – Advanced Standing
• Nitrous Oxide/Oxygen Sedation Monitoring – Dental Assistant
• Nursing Assistant
• Office Assistant
• Payroll Clerk
• Predictive Maintenance Advanced
• Residential Plumbing
• Tax Preparer
• Video Game Fundamentals
• Wall Framing and Roofing
• Welding – Production Welding
• Welding – Qualified Advanced
Associate of General Studies

The Associate of General Studies (AGS) degree is awarded upon the completion of an individualized plan of study that is primarily designed for the acquisition of a broad educational background rather than a specific college major or professional/technical program. Students will develop an approved Plan of Study working directly with their academic dean/chair. This degree is not intended for transfer but rather an opportunity to combine skills and knowledge to meet the rigor of an Associates level degree that may enable the graduate to meet a specific job opportunity. The individualized Plan of Study must be approved by the respective Associate Dean and the Dean of Instruction prior to the awarding of the degree.

Degree Requirements

A minimum of 64 credit hours are required for the degree with a minimum of a 2.0 cumulative grade point average.

General Education: 25 credit hours minimum required

- English and Speech
  6 credit hours minimum of approved courses

- Mathematics/Lab Science
  4 credit hours minimum of approved courses

- Humanities and Social and Behavior Sciences
  6 credit hours minimum of approved courses

Distributed Requirement

9 additional credit hours from any of the areas above

Approved courses are any courses that meet any of the above requirements as outlined in the Associate of Arts degree and the Associate of Science degree.

Technical Courses:

A maximum of 32 credit hours in vocational/technical courses may be included in the Plan of Study. A maximum of six (6) of the 32 credit hours are allowed for an approved internship.

Alternative Delivery Systems

Online

WITCC belongs to the Iowa Community College Consortium (ICCOC), seven Iowa community colleges who partner to offer courses and programs online via a shared learning management system. The seven community colleges that are members of ICCOC are Eastern Iowa Community College, Iowa Lakes Community College, North Iowa Area Community College, Northwest Iowa Community College, Southeastern Community College, and Western Iowa Tech Community College. Further information is available at www.iowacconline.org or www.witcc.edu.

Hybrid

WITCC offers hybrid courses that combine traditional face-to-face instruction and online technology. Many learning activities in the course are delivered online, reducing the number of face-to-face meetings for students and allowing greater flexibility in their educational pursuits.

Video Presence Classrooms

WITCC offers courses via its Video Presence system that provides fully interactive video and audio to and from classrooms in Sioux City, Denison, and Cherokee. This system connects to the Iowa Communications Network (ICN) allowing connectivity to other locations.
**Associate of Applied Science Degree Requirements**

The Associate of Applied Science (A.A.S.) degree is awarded to graduates who complete the technical or paraprofessional degree programs in a specific occupational field. The curriculum normally requires two years (minimum of four semesters) to complete when taken on a full-time basis and includes technical courses that emphasize applied sciences and general education courses. (A.A.S. programs contain a minimum of 64 credit hours.)

Although the Associate of Applied Science degree is not designed to be a transfer program, some of the courses may be accepted toward a baccalaureate degree at some institutions. Please consult a WITCC academic advisor for further information.

**Associate of Applied Science Requirements**

The Associate of Applied Science degree is awarded to students who satisfy the following requirements:

1. Satisfactorily complete a prescribed program of study as outlined in the College catalog. Each A.A.S. program is designed for a specific occupational field; semester hour requirements will vary with the particular program. A.A.S. programs contain a minimum of 64 semester credit hours.
2. A minimum of fifteen (15) semester credit hours must be in the A.A.S. General Education.
3. Earn a minimum cumulative grade point average of 2.0 ("C" average).
4. Earn a minimum of fifteen (15) credit hours in an A.A.S. degree program at WITCC.
5. File an application for graduation at the Enrollment Services Office or online by the filing deadline.
6. Resolve all financial obligations to the College and return all library and College materials.
7. Complete the College’s outcomes assessment requirement.

**NOTE:** Developmental education courses (courses numbered below 100) do not fulfill AAS requirements.

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**Associate of Applied Science General Education**

Students earning the Associate of Applied Science degree must complete a minimum of 15 hours of general education. At least one course from English/Speech, Mathematics/Science, and Social and Behavior Science/Humanities is required as part of the 15 credits.

**Successful completion of SDV 108 is a requirement of graduation.**

I. **General Education Core**

   A. **English and Speech (minimum one course)**
      - COM 723, 753
      - ENG 105
      - SPC 112, 122

   B. **Mathematics and Science (minimum one course)**
      - MAT 102, MAT 772, 777 or higher, or approved science course

   Take a minimum of one course from C or D

C. **Social and Behavioral Sciences**

   - **History and Diverse Cultures**
     - ANT 105
     - CLS 212
     - GEO 121
     - HIS 110, 111, 151, 152, 211
     - SOC 100 or higher

   - **Social and Political Sciences**
     - ECN 120, 130
     - POL 111, 112, 121, 125
     - PSY 102, 111 or higher

D. **Humanities**

   - **Arts and Science Courses**
     - ART 101, 184, 186, 203, 204, 370, 371
     - DRA 101, 112
     - ENG 221
     - FLF 141 or higher
     - FLG 141 or higher
     - FLS 141 or higher
     - HUM 101, 220
     - LIT 101, 133, 185
     - MMS 101
     - MUS 100, 202
     - PHI 101, 105, 111
     - REL 101, 150
     - SPC 122

E. **General Education Elective—up to 3 credits**

   Take 3 credits of any Arts and Science classified coursework including, but not limited to, any of the courses listed above in A, B, C, or D. Check your plan of study or consult with your advisor on appropriate course selection.
**Diploma**

A diploma is awarded to graduates who complete the technical or paraprofessional degree programs in a specific occupational field. The curriculum normally requires one year (minimum of two semesters) to complete when taken on a full-time basis. Technical courses that emphasize applied science and general education courses are included.

Diploma programs contain a minimum of 30 semester credit hours. Diploma programs may fulfill a major portion of Associate of Applied Science degree requirements. Students should consult with their academic advisor regarding course options before enrolling.

**Diploma Requirements**

1. Satisfactorily complete a minimum of 30 semester hours from an approved program of study.
2. Earn a minimum of six (6) semester credits in general education.
3. Earn a minimum cumulative grade point average of 2.0 (“C” average).
4. Earn a minimum of ten (10) credit hours in a diploma program at WITCC.
5. Successful completion of SDV 108 is a requirement of graduation.
6. File an application for graduation at the Enrollment Services Office by the filing deadline.
7. Resolve all financial obligations to the College and return all library and College materials.

NOTE: Developmental education courses (courses numbered below 100) do not fulfill diploma requirements.

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**Certificates**

Certificates are designed to enable students to gain entry-level employment in specialized areas or to qualify for occupational advancement. A Certificate may consist of selected occupational and general education college credit courses.

**Certificate Requirements**

1. Successfully complete a prescribed certificate program of study.
2. Each is designed for a specific occupational field; semester hour requirements will vary with the particular program.
3. Earn a minimum cumulative grade point average of 2.0 (“C” average).
4. Successful completion of SDV 108 is a requirement of graduation.
5. Resolve all financial obligations to the College and return all library and College materials.
6. File an application for graduation at the Enrollment Services Office by the filing deadline.

NOTE: Developmental education courses (courses numbered below 100) do not fulfill certificate requirements.
Accounting Specialist

Associate of Applied Science

This program prepares individuals to practice the profession of accounting and to perform related business functions. Students must earn a “C” or better in all core courses before participating in an internship, service learning, or on-the-job training. A “C” or better in all core courses is also required for graduation.

Plan of Study

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDV 108</td>
<td>The College Experience</td>
<td>1</td>
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<tr>
<td>ACC 131</td>
<td>Principles of Accounting I</td>
<td>4</td>
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<td>MAT 102</td>
<td>Intermediate Algebra</td>
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<td>BCA 147</td>
<td>Basic Spreadsheets</td>
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<tr>
<td>BCA 148</td>
<td>Advanced Spreadsheets</td>
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<td>FIN 121</td>
<td>Personal Finance</td>
<td>3</td>
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<tr>
<td>ACC 132</td>
<td>Principles of Accounting II</td>
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<td>ACC 161</td>
<td>Payroll Accounting</td>
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<td>ACC 171</td>
<td>Income Tax Accounting</td>
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<tr>
<td>BUS 185</td>
<td>Business Law I</td>
<td>3</td>
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<td>ADM 154</td>
<td>Business Communication</td>
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<td>ACC 221</td>
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Accounting

Diploma

This program prepares individuals to provide technical administrative support to professional accountants and other financial management personnel. Students must earn a “C” or better in all core courses before participating in an internship, service learning, or on-the-job training. A “C” or better in all core courses is also required for graduation.

Plan of Study

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<tr>
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<td>ACC 171</td>
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Bookkeeping and Office Support

Diploma

This program is designed for someone who likes both office and bookkeeping skills. Course work includes bookkeeping and office procedures and machine skills using computers and electronic calculators. Program emphasis is on developing bookkeeping concepts so that graduates can assist an accountant as well as perform necessary office skills. Training includes group and individual instruction, laboratory practice, worksheets and financial statement preparation.

Graduates of the Bookkeeping and Office Support program will find employment as general ledger, inventory and payroll clerks, assistant bookkeepers, and related jobs.

Plan of Study

<table>
<thead>
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<td>ADM 131</td>
<td>Office Calculators</td>
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<td>ADM 176</td>
<td>Electronic Records System</td>
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<tr>
<td>ACC 131</td>
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<td>ACC 171</td>
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</table>
Bookkeeping
Certificate
This certificate is designed for someone to learn basic bookkeeping skills. Program emphasis is on developing bookkeeping concepts so that graduates can assist an accountant.

Plan of Study
SDV 108 The College Experience ........................................... 1
ACC 131 Principles of Accounting I ........................................ 4
BCA 147 Basic Spreadsheets ................................................ 2

ACC 161 Payroll Accounting .................................................. 3
ACC 171 Sales & Use Tax ...................................................... 1
ACC 311 Computer Accounting ............................................ 3
ADM 162 Office Procedures ................................................ 3

Program Total ................................................................. 17

Cost Accounting
Certificate
This certificate program is designed to enable the student to use cost accounting concepts to perform variance analysis and prepare cost of production reports. These courses can be applied toward the fulfillment of an Accounting Diploma and Accounting Specialist AAS degree.

Plan of Study
SDV 108 The College Experience ........................................... 1
ACC 131 Principles of Accounting I ........................................ 4
MAT 102 Intermediate Algebra ............................................ 4
BCA 147 Basic Spreadsheets ................................................ 2
BCA 148 Advanced Spreadsheets ......................................... 2

ACC 132 Principles of Accounting II ..................................... 4
ADM 162 Office Procedures ................................................ 3

ACC 221 Cost Accounting .................................................... 3

Program Total ................................................................. 23

Payroll Clerk
Certificate
This certificate program is designed to enable the student to compute wages and salaries, maintain payroll records, and prepare reports required by governmental agencies and the employer. These courses can be applied toward the fulfillment of an Accounting Diploma and Accounting Specialist AAS degree.

Plan of Study
SDV 108 The College Experience ........................................... 1
ACC 131 Principles of Accounting I ........................................ 4
MAT 102 Intermediate Algebra ............................................ 4

BCA 147 Basic Spreadsheets ................................................ 2
BCA 148 Advanced Spreadsheets ......................................... 2

ACC 161 Payroll Accounting .................................................. 3
ACC 311 Computer Accounting ............................................ 3
ADM 162 Office Procedures ................................................ 3

Program Total ................................................................. 22

Tax Preparer
Certificate
This certificate program is designed to enable the student to become a tax preparer. The courses in the Tax Preparer Certificate can be applied toward fulfillment of an Accounting Diploma and Accounting Specialist AAS degree.

Plan of Study
SDV 108 The College Experience ........................................... 1
ACC 131 Principles of Accounting I ........................................ 4
MAT 102 Intermediate Algebra ............................................ 4
BCA 147 Basic Spreadsheets ................................................ 2
BCA 148 Advanced Spreadsheets ......................................... 2
FIN 121 Personal Finance .................................................... 3

ACC 132 Principles of Accounting II ..................................... 4
ACC 261 Income Tax Accounting .......................................... 3
ACC 171 Sales & Use Tax ...................................................... 1
ADM 162 Office Procedures ................................................ 3
BUS 185 Business Law ....................................................... 3

Program Total ................................................................. 30

Administrative Assistant – Medical
Associate of Applied Science
This program prepares individuals to perform the duties of administrative assistants for practicing physicians, health care facilities, health service administrators and other health care professionals.

Plan of Study
SDV 108 The College Experience ........................................... 1
ADM 105 Introduction to Keyboarding ................................... 1
ADM 131 Office Calculators ................................................ 1
HSC 114 Medical Terminology ............................................ 3
CSC 110 Introduction to Computers ....................................... 3
HIT 248 Essentials of Medical Coding ................................. 2
BIO 163 Essentials of Anatomy and Physiology .................... 4

HSC 218 Clinical Pathology for Allied Health ......................... 3
MAP 123 Administrative Medical Office Procedures ............. 3
HIT 301 Electronic Health Records ....................................... 3
MAP 134 Medical Transcription .......................................... 3
ADM 154 Business Communication .................................... 3
ADM 123 Document Formatting .......................................... 3
Medical Coding Specialist

*Diploma*

This program prepares students to assign codes to diagnoses and procedures using nationally recognized coding systems required for billing and reimbursement in health care facilities. The Courses in this program can be applied to an Associate of Applied Science (AAS) degree in Administrative Assistant-Medical.

**Plan of Study**

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<td>HSC 114</td>
<td>Medical Terminology</td>
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<td>MAP 402</td>
<td>Medical Law and Ethics</td>
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<td>MAP 141</td>
<td>Medical Insurance</td>
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<tr>
<td>BIO 163</td>
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<td>HIT 248</td>
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**Program Total** ................................................................. 66

Medical Transcriptionist

*Diploma*

This program prepares students to produce/proof medical reports and documentation which becomes a part of the medical-legal record.

**Plan of Study**

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

Health Information Technology

*Certificate*

This program prepares students to use electronic records systems in creating, managing, retrieving and accessing electronic health records.

**Plan of Study**

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**Program Total** ................................................................. 17
Administrative Office Management

Associate of Applied Science

This program prepares individuals to perform the duties of administrative assistants. It includes instruction in business communications, proofreading and editing, keyboarding and document processing, office procedures, business etiquette, basic accounting, filing systems and records management, and presentation preparation. Individuals also receive in-depth instruction in word processing, data base, spreadsheet, and presentation software. Students must earn a “C” or better in all core courses before participating in an internship, service learning, or on-the-job training. A “C” or better in all core courses is also required for graduation.

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Program Total........................................... 64 - 76

Administrative Office Support

Diploma

This program prepares individuals entry-level office employment. Includes instruction in basic accounting, computer software skills, and office procedures. Individuals will also receive training in keyboarding and document processing, office procedures, proofreading and editing, business communications, and office calculators. Students must earn a “C” or better in all core courses before participating in an internship, service learning, or on-the-job training. A “C” or better in all core courses is also required for graduation.

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</table>

Program Total........................................... 31

Certificate

This program will develop skills for entry-level office employment by concentrating on basic skills such as keyboarding, office calculators, filing and records management, document processing, and office procedures.

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Program Total........................................... 15
Agribusiness Technology

Associate of Applied Science

This program is designed to enable students to find employment in the areas of production agriculture and agribusiness. Instructional areas include crop production, animal production, management, sales and marketing.

Students will be provided with a combination of classroom instruction and agriculture/cooperative work experience.

Plan of Study

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<th>Course Title</th>
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XXX XXX Business Elective: ACC, BUS, MGT, OR MKT PREFIX.

Agriculture Management

Associate of Applied Science

This program provides a broad agriculture knowledge-base for students. Graduates may secure employment in the areas of production agriculture and agribusiness. Instructional areas include crop production, animal production, finance, management, sales, and marketing.

This agriculture degree is offered online. Students may gain relevant hands-on experience with agribusinesses within their locality or beyond.

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AGB XXX Agriculture Electives: AGB 210, AGC 420, AGM 155, AGS 226, AGS 270, AGS 319, AGS 331, or AGC 403.

Agriculture

Diploma

This program will give the graduate entry-level skills in crop production, livestock management, and agricultural marketing. This agriculture diploma is offered online. Students may gain relevant hands-on experience with agribusinesses within their locality or beyond.

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AGB XXX Agriculture Electives: Select a minimum of 6 credits from: AGB 210, AGC 420, AGM 155, AGS 226, AGS 270, AGS 319, AGS 331, or AGC 403.
Air Conditioning, Heating, and Refrigeration

Diploma

This program includes a study of air conditioning, heating, and refrigeration for residential and light commercial equipment. Students are trained to be HVAC technicians in a real-world, hands-on lab environment. Students who complete the WITCC Air Conditioning, Heating, and Refrigeration Diploma Program have the opportunity to take a test to enter the WITCC HVAC Apprenticeship program. If students pass the test, at a 75% rate, they may earn credit for Year 1 of the WITCC HVAC Apprenticeship program. In order for students to begin Year 2 of the apprenticeship program, they must be business sponsored and working 2000 hours annually. Upon completing the WITCC HVAC Apprenticeship Program, which has had the standards approved by the Department of Labor, Office of Apprenticeship, and completers will be eligible to take the Iowa Journeyman HVAC licensing examination.

Plan of Study

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Program Total: ................................................................. 36

Heating

Certificate

This certificate will prepare the student to maintain and troubleshoot residential heating equipment. Students are trained to be heating technicians in a real world hands-on lab environment. The HVAC facility is equipped with state-of-the-art and conventional heating systems in which students experience ample hands-on training. Students may receive credit for coursework taken and skills learned toward completion of Apprenticeship Related Training Instruction (RTI) requirements.

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Program Total: ................................................................. 17

Audio Engineering Technician

Associate of Applied Science

This program presents the world audio, sound studio operations, current music technologies, and music and sound production as they are implements for music, film, video, television, and interactive media. Students will acquire skills in sound mixing and editing, using various kinds of audio recording equipment, and the ability to engage in sound design.

Plan of Study

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CAREER PROGRAMS

Auto Collision Repair Technology
Associate of Applied Science

This program prepares the student for a career as a specialist in auto body repair. The automobile repair business is becoming even more important today as many car owners are having their present vehicles repaired rather than buying new ones. Students will receive training in sheet metal welding and cutting, cost estimating, basic business procedures, metal straightening, frame repair, suspension, glass, plastic, and fiberglass repair, body construction, automotive painting and refinishing. The student will gain practical experience by working on damaged vehicles in a state-of-the-art auto collision facility.

Plan of Study

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Auto Body Refinishing
Diploma

This diploma option prepares the student to do standard refinishing procedures, color blending, and color tinting. Students will identify and solve issues related to common paint problems.

Plan of Study

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</table>
**Auto Body Repair**

*Certificate*

This certificate program provides students exposure, fundamental knowledge and skills related to the auto collision industry. Students will have the opportunity to develop entry-level skills related to the repair of auto body fenders and finishes. Topics include welding, fender repair and preparation to finish and painting techniques.

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**Program Total** 25

**Auto Body Structural Repair**

*Diploma*

This diploma option prepares the student to perform basic body repairs, panel replacements, frame repair and analysis, and unibody structural repairs. Students will be introduced to the use of a frame machine, MIG welding, plastic welding and spot welding. Students will also learn how to take a crashed vehicle and fix all of the damage up to being painted.

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**Program Total** 32

**Auto Body Procedures**

*Certificate*

This certificate will offer students training to be prepared to complete minor auto collision damage. Emphasis will be placed on alignment and replacement of damaged fenders, light sheet metal work, interior dismantling and reassembly, windshield replacement, and sheet metal welding.

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**Program Total** 13

**Automotive Painting**

*Certificate*

This certificate provides students with auto collision skills in the areas of painting. Students will have the opportunity to prep and paint sheet metal and fiberglass panels.

**Plan of Study**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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<tr>
<td>CRR 834</td>
<td>Refinishing II</td>
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**Program Total** 13

**Automotive Technology**

*Associate of Applied Science*

This program is designed to prepare the student to perform a wide range of diagnostics, repair, and preventative maintenance tasks on automobiles and light trucks. Students will have extensive hands-on training in engine overhaul, manual and automatic drive train, front end alignment, brake service and repair, fuel systems, ignition systems, and air conditioning. In addition, the program provides training in electrical and electronic control systems, engine performance diagnosis, and on-board computerized engine control systems diagnosis.
### Plan of Study

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
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<td>Automotive Electricity/Electronics</td>
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<tr>
<td>AUT 633</td>
<td>Automotive Electrical Systems</td>
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</tr>
<tr>
<td>AUT 671</td>
<td>Automotive Body Computer Systems</td>
<td>3</td>
</tr>
<tr>
<td>MAT 772</td>
<td>Applied Math</td>
<td>3</td>
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<td>AUT 807</td>
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<td>ART 186</td>
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<td>AUT 703</td>
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<td>BCA 206</td>
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<td>AUT 128</td>
<td>Introduction to Automotive Suspension and Steering</td>
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<tr>
<td>COM 723</td>
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<td><strong>Program Total</strong></td>
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### Auto Mechanic

**Diploma**

This program prepares students to enter the auto repair industry with basic skills in electrical/electronics, engine overhaul, cooling, and suspension systems.

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<td><strong>Program Total</strong></td>
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### Automotive Drive Train

**Certificate**

This certificate prepares the student to rebuild manual and automatic transmissions. Upon completion of the certificate, graduates will be prepared to complete fundamental tasks related to transmission repairs and replacements.

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### Automotive Electrical

**Certificate**

This certificate prepares students to trace and troubleshoot electrical and electronic problems, and make repairs on automotive electrical systems. The electrical systems to be studied will include on-board computer systems, door locks, automatic windows, airbags, and lighting.

### Plan of Study

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</table>

### Band Instrument Repair

**Associate of Applied Science**

This program prepares individuals to apply technical knowledge and skills to repair, adjust, maintain, and tune woodwind and brass instruments. Includes instruction in methods and equipment used in cleaning, repair, and maintenance of these instruments, as well as basic machining, shop safety, and principles of repair shop management.

### Plan of Study

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<td>Woodwind Repair I</td>
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<td>BIR 150</td>
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<td>Introduction to Psychology</td>
<td>3</td>
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</tbody>
</table>

www.witcc.edu/programs
### Broadcasting and Multimedia Journalism

**Associate of Applied Science**

Broadcasting and Multimedia Journalism is a two-year AAS degree program which is aimed at students invested in and wishing to enter the world of broadcasting. Coursework includes the production side for learning the technology used in day to day operations, and also essential skills such as news writing, copy editing, and using critical thinking to make informed decisions regarding content in the field of journalism. Other courses in the program introduce the student to concepts in broadcast management and on-air production. Students will be involved in developing content for both our on-campus streaming radio station, Comet Radio, and our internet television station, WITv, both located within our extensive lab area. Other skills will be put to practice in a real life newsroom also incorporated into our facility. This program allows the student to learn the skills necessary to obtain entry level employment in the Television, Radio and Internet Broadcasting industry.

**Plan of Study**

<table>
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<th>Course Title</th>
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<td>BIR 141</td>
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<td>BIR 151</td>
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<td>MUA 175</td>
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<td>BIR 126</td>
<td>Woodwind Machine Operations</td>
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<td>BIR 210</td>
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<td>MUS 100</td>
<td>Music Appreciation</td>
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<td>BUS 102</td>
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<td>BIR 215</td>
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Program Total: 68

### Business Management

**Associate of Applied Science**

This program is aimed primarily at students seeking employment as first-line supervisors and entry-level management. The program is also of interest to the student who is a first-line supervisor and needs to improve his or her skills. Students acquire a background in basic business including accounting, budgeting, math and economics as well as practical supervisory skills. Students must earn a “C” or better in all core courses before participating in an internship, service learning, or on-the-job training. A “C” or better in all core courses is also required for graduation.

**Plan of Study**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
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<td>ACC 131</td>
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<td>ECN 120</td>
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<tr>
<td>PHI 105</td>
<td>Introduction to Ethics</td>
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</table>
Technical Business Management

Associate of Applied Science

This advanced standing degree allows students who have completed a diploma in a technical field to pursue business management training. Students may use this flexible program to gain the skills to run their own business or advance within their current organization. Students must have completed their diploma before acceptance into the program and should work with their advisor to customize the plan of study to meet their goals.

Plan of Study

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<tr>
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Program Total: 64 credits

Certified Personal Trainer

Certificate

This program prepares individuals for employment in health and fitness clubs, wellness centers, public and private recreation facilities, hospitals and corporate fitness programs where they will perform a variety of instructional and administrative duties to influence the health and well-being of individuals. Upon successful completion of the certificate or diploma program, the graduate is eligible to take the NCSF-CPT certification exam.

Plan of Study

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<td>BIO 169</td>
<td>Human Anatomy and Physiology IA w/lab</td>
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<td>HSC 270</td>
<td>Clinical Exercise Testing</td>
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<td>BIO 151</td>
<td>Nutrition</td>
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<td>HSC 272</td>
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<td>HSC 127</td>
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</table>

Program Total: 33 credits

Certified Personal Trainer

Diploma

This program prepares individuals for employment in health and fitness clubs, wellness centers, public and private recreation facilities, hospitals and corporate fitness programs where they will perform a variety of instructional and administrative duties to influence the health and well-being of individuals. Upon successful completion of the certificate or diploma program, the graduate is eligible to take the NCSF-CPT certification exam.

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Program Total: 18 credits
Coaching

Certificate
This certificate prepares students to instruct and coach groups or individuals in the fundamentals of fitness and athletics. Students learn to provide training direction, encouragement, motivation, and nutritional advice to students and athletes, as well as explain and enforce safety rules and regulations.

Completion of the coursework within this certificate is one of the mandatory requirements to apply for a coaching authorization or endorsement. According to the Iowa Board of Educational Examiners (BoEE), “All coaches (paid OR volunteer) are required to have either their coaching authorization, or a coaching endorsement listed on a valid teaching license.” Additional information may be found on the BoEE website.

Plan of Study
PEC 110 Coaching Ethics, Techniques and Theory ............... 1
PEC 115 Athletic Development and Human Growth ............ 1
PEC 120 Body Structure and Function ................................ 1
PEC 126 Athletic Injury Prevention .................................... 2

Program Total ............................................................... 5

Concrete Specialties

Certificate
This Certificate helps students explore advanced and innovative ways of using concrete in the construction industry. It also allows for American Concrete Institute (ACI) concrete certification.

Plan of Study
CON 234 Concrete Specialties ........................................... 3
CON 136 Introduction to Construction Shop ....................... 1
CON 132 Footings and Foundations .................................. 3

Program Total ............................................................... 7

Carpentry

Certificate
This certificate prepares graduates for entry level jobs in the construction industry. The latest in carpentry techniques and building materials will be taught.

Plan of Study
SDV 108 The College Experience ...................................... 1
CON 136 Introduction to Construction Shop ....................... 1
CON 204 Basic Framing Techniques ................................. 4
CON 366 Exterior Finishing ............................................ 4
CON 209 Introduction to Drywall .................................... 1
CON 367 Interior Doors, Cabinets and Millwork ................. 2.5
MAT 772 Applied Math .................................................. 3

Program Total ............................................................... 16.5

Construction

Diploma
This program provides students with the knowledge and skills needed for employment as a carpenter or concrete specialist. Study includes residential and commercial construction, with all phases explored and applied on a job site or in the lab. Specialized coursework includes drywall installation and finishing, blueprint reading, construction estimating, concrete stamping, and construction materials.

Plan of Study
SDV 108 The College Experience ...................................... 1
CON 136 Introduction to Construction Shop ....................... 1
CON 204 Basic Framing Techniques ................................. 4
CON 216 Advanced Framing and Roofing ......................... 6
CON 366 Exterior Finishing ............................................ 4
MAT 772 Applied Math .................................................. 3
CON 209 Introduction to Drywall .................................... 1
CON 365 Advanced Drywall ........................................... 1.5
CON 367 Interior Doors, Cabinets and Millwork ................. 2.5
CON 258 Wall Coverings and Coatings ........................... 1.5
CON 259 Floor Coverings and Coatings ........................... 1.5
CON 132 Footings and Foundations ................................. 3
CON 234 Concrete Specialties ........................................ 3
COM 723 Workplace Communications ........................... 3

Program Total ............................................................... 36

Drywall

Certificate
This certificate prepares students to be able to fasten drywall panels, tape, texture, and then prepare these panels for painting by taping and finishing joints and other imperfections.

Plan of Study
CON 136 Introduction to Construction Shop ....................... 1
CON 209 Introduction to Drywall .................................... 1
CON 365 Advanced Drywall ........................................... 1.5

Program Total ............................................................... 3.5

Interior Finishing

Certificate
This certificate helps prepare students to perform the finishing work within the home, installing doors, cabinets, flooring etc. Interior finishing carpenters work for home builders, supply and install companies, or as independent
contractors. The Introduction to Construction Shop, Wall Coverings, and Coatings, Introduction to Drywall, Advanced Drywall, and Interior Doors, Cabinets, and Millwork courses could also be taken for the individual looking for help with home improvement projects dealing with floor and wall coverings, drywall as well as doors and cabinets.

Plan of Study
CON 136 Introduction to Construction Shop .......................... 1
CON 204 Basic Framing Techniques ................................... 4
CON 216 Advanced Framing and Roofing ............................ 6

Program Total ................................................................. 11

Wall Framing and Roofing
Certificate
This certificate offers a background in woods, fasteners, and materials, blueprint reading, framing of exterior and interior walls, doors and window openings. Students will also be exposed to multiple types of rafter construction, roof framing and finishing, and steel framing in the residential and light commercial setting. Training to receive the 10 hour OSHA safety card is also completed with this certificate.

Plan of Study
CON 136 Introduction to Construction Shop .......................... 1
CON 204 Basic Framing Techniques ................................... 4
CON 216 Advanced Framing and Roofing ............................ 6

Program Total ................................................................. 11

Culinary Arts
Associate of Applied Science
This program prepares students to provide professional chef and related cooking services in restaurants and other commercial food establishments. Includes advanced techniques in culinary skills, as well as kitchen management and supervision.

Plan of Study
SDV 108 The College Experience ....................................... 1
HCM 100 Sanitation and Safety ........................................... 2
HCM 188 Knife Skills ....................................................... 2
HCM 252 Stocks and Sauces .............................................. 2
HCM 270 Garde Manger .................................................... 2
HCM 287 Ingredient Identification ....................................... 2
HCM 410 Culinary Seminar I ............................................. 1
MAT 772 Applied Math ..................................................... 3

HCM 116 Fundamentals of Baking ....................................... 3
HCM 231 Nutrition ......................................................... 2
HCM 262 Financial Management, Purchasing and Cost Control .................................................... 3
HCM 306 Basic Cooking Methods ....................................... 3
HCM 411 Culinary Seminar II ........................................... 1
COM 723 Workplace Communications ................................ 3

HCM 275 Baking II ......................................................... 3
HCM 303 Front of House .................................................. 3
HCM 307 Intermediate Cooking Methods ......................... 3
HCM 308 Food Sustainability ............................................ 2
MGT 170 Human Resource Management OR .................... 3
BUS 130 Introduction to Entrepreneurship ........................ 3
ART 101 Art Appreciation OR .......................................... 3
SOC 110 Introduction to Sociology ..................................... 3

HCM 116 Internship OR .................................................. 3
HCM 941 Practicum ......................................................... 3

Program Total ................................................................. 64

Food Service
Diploma
The Food Service Diploma emphasizes fundamental and intermediate techniques of food preparation, production and baking skills. This program prepares students for intermediate level positions in the industry.

Plan of Study
SDV 108 The College Experience ....................................... 1
HCM 100 Sanitation and Safety ........................................... 2
HCM 188 Knife Skills ....................................................... 2
HCM 252 Stocks and Sauces .............................................. 2
HCM 270 Garde Manger .................................................... 2
HCM 287 Ingredient Identification ....................................... 2
HCM 410 Culinary Seminar I ............................................. 1
MAT 772 Applied Math ..................................................... 3

HCM 116 Fundamentals of Baking ....................................... 3
HCM 231 Nutrition ......................................................... 2
HCM 262 Financial Management, Purchasing and Cost Control .................................................... 3
HCM 306 Basic Cooking Methods ....................................... 3
HCM 411 Culinary Seminar II ........................................... 1
COM 723 Workplace Communications ................................ 3

Program Total ................................................................. 30
**Food Preparation**

**Certificate**

This certificate emphasizes the fundamental techniques of sanitation, food preparation, and production skills.

**Plan of Study**

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
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<td>HCM 100</td>
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<tr>
<td>HCM 188</td>
<td>Knife Skills</td>
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<td>HCM 252</td>
<td>Stocks and Sauces</td>
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<td>HCM 270</td>
<td>Garde Manger</td>
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<td>HCM 287</td>
<td>Ingredient Identification</td>
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<tr>
<td>HCM 410</td>
<td>Culinary Seminar I</td>
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</table>

Program Total ........................................ 12

**Cyber Security and Digital Crime**

**Associate of Applied Science**

This program is designed to fill a critical and growing need for cyber security personnel in the public and private sector. Students completing this curriculum will be capable of investigating computer crimes, properly seizing and recovering computer evidence, and aiding in the prosecution of cyber criminals. To combat computer related crime, students in the Cyber Security and Digital Crime program will also understand counter measures against hacking, spam, and computer viruses through network intrusion detection and evidence gathering.

**Plan of Study**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
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<tr>
<td>NET 121</td>
<td>Fundamentals of Computers and Networks</td>
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<tr>
<td>NET 612</td>
<td>Fundamentals of Network Security</td>
<td>3</td>
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<tr>
<td>NET 351</td>
<td>Python for Cyber Security Professionals</td>
<td>3</td>
</tr>
<tr>
<td>NET 170</td>
<td>Configuring Windows</td>
<td>4</td>
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<tr>
<td>NET 772</td>
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<td>NET 197</td>
<td>Intermediate Networking</td>
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<tr>
<td>NET 423</td>
<td>Securing a Linux Environment I</td>
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<td>NET 638</td>
<td>Network Firewalls and VPNs</td>
<td>3</td>
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<tr>
<td>NET 617</td>
<td>Implementing Security Policies and Procedures</td>
<td>3</td>
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<tr>
<td>NET 621</td>
<td>Network Security Analysis</td>
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<tr>
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<td>Workplace Communications</td>
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</table>

Program Total ........................................ 35

**Information Security Analyst**

**Diploma**

This program prepares the student to be responsible for network intrusion detection and mitigation. Students will learn to monitor computer networks, install and maintain security measures, and document security breaches. Students will also be taught to develop security best practices. Throughout the program students will be able to work with various security appliances and technologies. This program prepares students for an entry level position in information security.

**Plan of Study**

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</thead>
<tbody>
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<td>SDV 108</td>
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<tr>
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<td>NET 351</td>
<td>Python for Cyber Security Professionals</td>
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<tr>
<td>NET 170</td>
<td>Configuring Windows</td>
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<tr>
<td>NET 197</td>
<td>Intermediate Networking</td>
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</tr>
<tr>
<td>NET 423</td>
<td>Securing a Linux Environment I</td>
<td>3</td>
</tr>
<tr>
<td>NET 638</td>
<td>Network Firewalls and VPNs</td>
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<tr>
<td>NET 617</td>
<td>Implementing Security Policies and Procedures</td>
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<tr>
<td>NET 621</td>
<td>Network Security Analysis</td>
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<td>COM 723</td>
<td>Workplace Communications</td>
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</table>

Program Total ........................................ 35

**Dental Assisting**

**Diploma**

This program is designed to prepare students to assume an active role in providing quality dental services under the direction of a licensed dentist. Preparation includes infection control management, chairside assisting procedures in general and specialty dentistry; management of medical and dental emergencies; intra- and extra-oral radiographic procedures; patient education; fabrication of oral appliances; and basic business office procedures. Program specific admission criteria must be met.

**Plan of Study**

**FULL TIME STUDIES**

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<tr>
<td>DEA 101</td>
<td>Professional Orientation</td>
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<td>DEA 256</td>
<td>Dental Anatomy</td>
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<td>DEA 274</td>
<td>Dental Therapeutics</td>
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<tr>
<td>DEA 406</td>
<td>Dental Materials</td>
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<tr>
<td>DEA 508</td>
<td>Fundamentals of Dental Assisting</td>
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</table>
Expanded Functions

Dental Assistant

Certificate

This certificate expands the scope of practice for a dental assistant performing intraoral functions in general and specialty dentistry. The course has been approved to meet requirements for Iowa. Participants are strongly advised to familiarize themselves with the laws and educational requirements for the state in which they practice.

Plan of Study

<table>
<thead>
<tr>
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<td>DEA 710</td>
<td>RDA Expanded Functions</td>
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</table>

Program Total .................................................. 35

Nitrous Oxide/Oxygen Sedation Monitoring - Dental Assistant

Certificate

This certificate expands the scope of practice of a dental assistant to include monitoring of nitrous oxide and oxygen sedation. The course has been approved to meet the requirements for monitoring nitrous oxide and oxygen sedation for both Iowa and South Dakota. Participants are strongly advised to familiarize themselves with the laws and educational requirements for which they practice.

Plan of Study

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
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<td>DEA 830</td>
<td>RDA Nitrous Oxide Monitoring</td>
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</table>

Program Total .................................................. 1

Digital Marketing

Associate of Applied Science

This program assists in the design and development of social media strategy utilizing various media platforms (Twitter, Facebook, YouTube).

The curriculum focuses on management of social media campaigns, engagement of social communities, development of content for reputable brand management ensuring positive consumer experience using integrated marketing promotions.

Plan of Study

<table>
<thead>
<tr>
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<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
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<td>SDV 108</td>
<td>The College Experience</td>
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<tr>
<td>GRA 131</td>
<td>Digital Layout</td>
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<td>GRA 201</td>
<td>Design Principles I</td>
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<tr>
<td>GRA 140</td>
<td>Digital Imaging</td>
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<td>GRA 241</td>
<td>Creative Career Seminar</td>
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<td>SMM 101</td>
<td>Social Media Explored</td>
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<tr>
<td>ENG 105</td>
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<td>GRA 132</td>
<td>Digital Layout II</td>
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<td>GRA 180</td>
<td>Interactive Design</td>
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<td>GRA 207</td>
<td>Design Principles II</td>
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<td>GRA 209</td>
<td>Vector Drawing</td>
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<td>GRA 208</td>
<td>Creative Career Seminar II</td>
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<tr>
<td>SOC 110</td>
<td>Introduction to Sociology</td>
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<tr>
<td>ART 186</td>
<td>Digital Photography</td>
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<tr>
<td>MAT 772</td>
<td>Applied Math</td>
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<td>GRA 141</td>
<td>Digital Imaging II</td>
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<td>BUS 150</td>
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<td>MKT 110</td>
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<tr>
<td>MMS 132</td>
<td>Writing for the Mass Media</td>
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<tr>
<td>GRA 246</td>
<td>Design Concepts and Trends</td>
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<td>GRA 247</td>
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<td>SMM 107</td>
<td>Applied Social Marketing</td>
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<tr>
<td>GRA 255</td>
<td>Motion Media Design I</td>
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<td>BUS 124</td>
<td>Business Innovation</td>
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<td>GRA 240</td>
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<td>GRA 700</td>
<td>Capstone for Creative Careers</td>
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</table>

Program Total .................................................. 72
Early Childhood Education

Associate of Applied Science

This program prepares graduates to develop, manage and evaluate early childhood programs as well as implement developmentally appropriate curriculum for children from birth through age 8. Students develop skills needed to support culturally, linguistically and ability diverse children and their families.

Plan of Study

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
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<td>SDV 108</td>
<td>The College Experience</td>
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<tr>
<td>ECE 103</td>
<td>Introduction to Early Childhood Education</td>
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<tr>
<td>ECE 112</td>
<td>Portfolio Development I</td>
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<tr>
<td>ECE 158</td>
<td>Early Childhood Curriculum I</td>
<td>3</td>
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<tr>
<td>ECE 170</td>
<td>Child Growth and Development</td>
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<tr>
<td>BCA 206</td>
<td>Applied Computer Concepts</td>
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<tr>
<td>ENG 105</td>
<td>Composition I OR</td>
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<tr>
<td>COM 723</td>
<td>Workplace Communications</td>
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<tr>
<td>ECE 133</td>
<td>Child Health, Safety, and Nutrition</td>
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<td>ECE 159</td>
<td>Early Childhood Curriculum II</td>
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<td>ECE 221</td>
<td>Infant/Toddler Care and Education</td>
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<td>ECE 243</td>
<td>Early Childhood Guidance</td>
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<td>ECE 241</td>
<td>Early Childhood Lab</td>
<td>2</td>
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<tr>
<td>SOC 110</td>
<td>Introduction to Sociology OR</td>
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<tr>
<td>PSY 111</td>
<td>Introduction to Psychology</td>
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<tr>
<td>ECE 215</td>
<td>Home, School &amp; Comm Relations</td>
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<td>ECE 262</td>
<td>Early Childhood Field Experience</td>
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<td>ECE 287</td>
<td>Exceptional Learner</td>
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<td>SOC 212</td>
<td>Diversity</td>
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<td>MAT 772</td>
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<td>ECE 246</td>
<td>Observation and Assessment</td>
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<td>LIT 105</td>
<td>Children’s Literature</td>
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<td>ECE 290</td>
<td>Early Childhood Program Administration</td>
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<td>ECE 932</td>
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<td>PHI 105</td>
<td>Introduction to Ethics OR</td>
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<td>SPC 122</td>
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Child Development – Infant/Toddler

Certificate

This certificate is designed to enable the student to become a trained child care assistant with an infant/toddler focus. The following courses are the recommended courses for students working toward a Child Development Associate® (CDA®) Credential™. CDA®, administered by the Council for Professional Recognition, is a nationally recognized credential for early childhood educators who understand and are able to put into practice core competencies for working with young children. Completing these courses does not give the student a CDA® Credential; these courses fulfill the educational component of the national CDA® credentialing program. The student must complete additional requirements and apply to the Council for Professional Recognition in Washington, DC to earn the CDA® Credential.

Plan of Study

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tr>
<td>SDV 108</td>
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<td>Child Health, Safety, and Nutrition</td>
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<td>ECE 243</td>
<td>Early Childhood Guidance</td>
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</table>

Child Development – Preschool

Certificate

This certificate is designed to enable the student to become a trained child care assistant with a
preschool focus. The following classes are the recommended courses for students working toward a Child Development Associate® (CDA) Credential™. CDA®, administered by the Council for Professional Recognition, is a nationally recognized credential for early childhood educators who understand and are able to put into practice core competencies for working with young children. Completing these courses does not give the student a CDA® Credential; these courses fulfill the educational component of the national CDA® credentialing program. The student must complete additional requirements and apply to the Council for Professional Recognition in Washington, DC to earn the CDA® Credential.

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<tr>
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</table>

**Early Childhood Program Administration Certificate**

This advanced-standing certificate is designed to provide students with leadership and management skills needed to work successfully with diverse individuals in early childhood settings. Completion of Early Childhood Studies diploma or a current Child Development Associate (CDA) credentials is required to be considered for this certificate.

**Plan of Study**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
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<tbody>
<tr>
<td>ECE 290</td>
<td>Early Childhood Program Administration</td>
<td>3</td>
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<tr>
<td>ECE 930</td>
<td>Administrative Practicum</td>
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<tr>
<td>PSY 102</td>
<td>Human and Work Relations</td>
<td>3</td>
</tr>
<tr>
<td>ACC 111</td>
<td>Introduction to Accounting OR</td>
<td>3</td>
</tr>
<tr>
<td>ACC 131</td>
<td>Principles of Accounting I</td>
<td>4</td>
</tr>
<tr>
<td>MGT 101</td>
<td>Principles of Management OR</td>
<td>3</td>
</tr>
<tr>
<td>MGT 130</td>
<td>Principles of Supervision OR</td>
<td>3</td>
</tr>
<tr>
<td>BUS 102</td>
<td>Introduction to Business OR</td>
<td>3</td>
</tr>
<tr>
<td>BUS 130</td>
<td>Introduction to Entrepreneurship</td>
<td>3</td>
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<tr>
<td>MGT 200</td>
<td>Managing Diversity OR</td>
<td>3</td>
</tr>
<tr>
<td>SOC 200</td>
<td>Minority Group Relations</td>
<td>3</td>
</tr>
</tbody>
</table>

**Electromechanical Technician Diploma**

This diploma program is designed to prepare students for an entry level position as an industrial mechanic or maintenance position. Electromechanical Technicians utilize knowledge and skills developed from learning various topics including electrical, mechanical, fluid power to maintain and repair industrial equipment and systems.

**Plan of Study**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>SDV 108</td>
<td>The College Experience</td>
<td>1</td>
</tr>
<tr>
<td>ELE 101</td>
<td>Industrial Safety</td>
<td>1</td>
</tr>
<tr>
<td>ELE 112</td>
<td>Basic Electrical Theory</td>
<td>3</td>
</tr>
<tr>
<td>EGT 142</td>
<td>Fluid Power I</td>
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</tr>
<tr>
<td>ELE 195</td>
<td>Motor Control</td>
<td>3</td>
</tr>
<tr>
<td>IND 141</td>
<td>Power Transmission</td>
<td>2</td>
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<tr>
<td>HCR 410</td>
<td>Electrical Applications I</td>
<td>3</td>
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<tr>
<td>MAT 772</td>
<td>Applied Math</td>
<td>3</td>
</tr>
<tr>
<td>BPT 114</td>
<td>Instrumentation I</td>
<td>2</td>
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<tr>
<td>EGT 143</td>
<td>Fluid Power II</td>
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<tr>
<td>EGT 211</td>
<td>Fluid Power III</td>
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<tr>
<td>ELT 250</td>
<td>Programmable Logic Controllers</td>
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<tr>
<td>ELT 102</td>
<td>Blueprint Reading</td>
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<td>IND 462</td>
<td>Pumps</td>
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<tr>
<td>ELE 312</td>
<td>Variable Frequency Drives for Motor Control</td>
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<tr>
<td>COM 723</td>
<td>Workplace Communications</td>
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</tbody>
</table>

**Early Childhood Education / Electromechanical Technician Certificate**

This certificate is designed to prepare students to perform entry-level industrial maintenance repairs. Students will learn to identify, perform scheduled maintenance, troubleshoot and perform repairs on equipment and machines. The theory of fluid power, hydraulics, mechanical systems and electricity will be learned through lecture and hands-on lab experiences.

**Plan of Study**

<table>
<thead>
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</thead>
<tbody>
<tr>
<td>SDV 108</td>
<td>The College Experience</td>
<td>1</td>
</tr>
<tr>
<td>ELE 101</td>
<td>Industrial Safety</td>
<td>1</td>
</tr>
<tr>
<td>ELE 112</td>
<td>Basic Electrical Theory</td>
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<tr>
<td>EGT 142</td>
<td>Fluid Power I</td>
<td>2</td>
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<tr>
<td>ELE 195</td>
<td>Motor Control</td>
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<tr>
<td>IND 141</td>
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<tr>
<td>HCR 410</td>
<td>Electrical Applications I</td>
<td>3</td>
</tr>
</tbody>
</table>

**Program Total**

16

**Program Total**

34

**Program Total**

15
**Predictive Maintenance Advanced Certificate**

*Certificate*

This advanced-standing certificate is designed to provide students with a knowledge of various industrial predictive maintenance methods. Students will gain entry-level knowledge of how to predict mechanical and electrical problems through the use of vibration analysis and thermography. The value of using ultrasound will also be introduced. The Electromechanical Technician Diploma or prior work experience approved by the Division Chair is required for entry into this program.

**Plan of Study**

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<td>MFG 465</td>
<td>Predictive Maintenance - Machine Vibration and Motors</td>
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<tr>
<td>MFG 466</td>
<td>Predictive Maintenance - Thermography and Ultrasound</td>
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</table>

| Program Total | 4 |

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**Electrician**

*Diploma*

This program offers an industry-recognized curriculum providing the basic knowledge and skills in applied electrical theory. Students will develop entry-level skills and knowledge needed for residential, commercial, and industrial wiring, blueprint reading, estimating, building codes and national codes. Important safety practices are strongly emphasized while working on electrical circuits and in the use of test equipment and hand and power tools. The program also provides students an opportunity to develop their electrical skills to enable them to work with AC and DC motors, controls, distribution panels.

**Plan of Study**

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>SDV 108</td>
<td>The College Experience</td>
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</tr>
<tr>
<td>ELE 101</td>
<td>Industrial Safety</td>
<td>1</td>
</tr>
<tr>
<td>ELE 112</td>
<td>Basic Electrical Theory</td>
<td>3</td>
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<tr>
<td>ELE 132</td>
<td>Introduction to Wiring</td>
<td>3</td>
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<tr>
<td>ELE 175</td>
<td>Installation of Wiring Systems</td>
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<tr>
<td>ELE 192</td>
<td>Principles of Motors/Transformers</td>
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<tr>
<td>MAT 772</td>
<td>Applied Math</td>
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<td>ELE 195</td>
<td>Motor Control</td>
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<td>ELE 184</td>
<td>Field Installed Commercial Systems</td>
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<td>ELE 250</td>
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<tr>
<td>COM 723</td>
<td>Workplace Communications</td>
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</tbody>
</table>

| Program Total | 34 |

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**Emergency Medical Services – Paramedic**

*Associate of Applied Science*

This program provides information and skill training to initiate and maintain treatment for medical, trauma, and cardiac emergencies. The Paramedic is the highest level of emergency responder training. The Paramedic AAS Degree offers a comprehensive course of study that prepares the graduate to sit for the EMT and EMT-Paramedic certification examinations as well as meet the requirements for the AAS degree.

Graduates are prepared to deliver emergency care to patients prior to their arrival at a hospital. Students are trained in life support procedures performed by following orders of the physicians or by following standard operating protocols. Successful completion of course requirements allows students to write the certification examination for the EMT-P (Paramedic).

The Emergency Medical Services – Paramedic program and the Paramedic Diploma program are accredited by the Commission of 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. 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.

**Plan of Study**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>SDV 108</td>
<td>The College Experience</td>
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<td>EMS 217</td>
<td>Emergency Medical Technician</td>
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<tr>
<td>BIO 169</td>
<td>Human Anatomy and Physiology IA w/lab</td>
<td>4</td>
</tr>
<tr>
<td>MAT 772</td>
<td>Applied Math</td>
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<tr>
<td>BIO 174</td>
<td>Human Anatomy and Physiology II A w/lab</td>
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<tr>
<td>PSY 111</td>
<td>Introduction to Psychology</td>
<td>3</td>
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<tr>
<td>SPC 122</td>
<td>Interpersonal Communication</td>
<td>3</td>
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<tr>
<td>ENG 105</td>
<td>Composition I</td>
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<td>EMS 540</td>
<td>NSC Paramedic I</td>
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<tr>
<td>EMS 541</td>
<td>Clinical I</td>
<td>3</td>
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<tr>
<td>EMS 810</td>
<td>Advanced Cardiac Life Support</td>
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</tr>
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<td>EMS 820</td>
<td>Prehospital Trauma Life Support</td>
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<td>EMS 545</td>
<td>NSC Paramedic II</td>
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<tr>
<td>EMS 546</td>
<td>Clinical II</td>
<td>3</td>
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<td>EMS 815</td>
<td>Advanced Pediatric Life Support</td>
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<td>EMS 825</td>
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<tr>
<td>EMS 547</td>
<td>Field Internship</td>
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</tbody>
</table>

| Program Total | 65 |
Paramedic

**Diploma**

Students must be a certified EMT to enroll in the diploma program.

This program provides information and skill training to initiate and maintain treatment for medical, trauma, and cardiac emergencies. The Paramedic is the highest level of emergency responder training. The Paramedic diploma offers a comprehensive course of study that prepares the graduate to sit for the EMT-P certification examination as well as meeting the requirements for the degree. The course offerings also apply toward the AAS degree.

Graduates are prepared to deliver emergency care to patients prior to their arrival at a hospital. Students are trained in life support procedures performed by following orders of the physicians or by following standard operating protocols.

Successful completion of course requirements allows students to write the certification examination for the EMT-P (Paramedic).

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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>SDV 108</td>
<td>The College Experience</td>
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<tr>
<td>EMS 540</td>
<td>NSC Paramedic I</td>
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<tr>
<td>EMS 541</td>
<td>Clinical I</td>
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</tr>
<tr>
<td>EMS 810</td>
<td>Advanced Cardiac Life Support</td>
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<tr>
<td>EMS 820</td>
<td>Prehospital Trauma Life Support</td>
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<tr>
<td>EMS 545</td>
<td>NSC Paramedic II</td>
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<tr>
<td>EMS 546</td>
<td>Clinical II</td>
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</tr>
<tr>
<td>EMS 815</td>
<td>Advanced Pediatric Life Support</td>
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<tr>
<td>EMS 825</td>
<td>Advanced Medical Life Support</td>
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<td>EMS 547</td>
<td>Field Internship</td>
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<tr>
<td>MAT 772</td>
<td>Applied Math</td>
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<tr>
<td>ENG 105</td>
<td>Composition I</td>
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</tr>
<tr>
<td><strong>Program Total</strong></td>
<td></td>
<td><strong>44</strong></td>
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</tbody>
</table>

Advanced Emergency Medical Technician

**Certificate**

This certificate will provide the student with roles and responsibilities of the EMS provider; well-being including injury prevention and infectious disease; an overview of human systems, pharmacology; venous access; airway management; training for management of medical and trauma emergencies; special considerations of the obstetric, neonatal, pediatric, and geriatric patients; and a focus on assessment based management. This course will also provide the student the opportunity to apply past and current cognitive knowledge and psychomotor skills in a supervised clinical or field setting. Student must have current Iowa EMT certification, AGA, HCP card and state approved Mandatory child and Adult Reporter. Instructor consent required.

**Plan of Study**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDV 108</td>
<td>The College Experience</td>
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<tr>
<td>EMS 217</td>
<td>Emergency Medical Technician</td>
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<td>EMS 312</td>
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<tr>
<td><strong>Program Total</strong></td>
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</table>

Emergency Medical Responder

**Certificate**

This certificate emphasizes the development of student skills in emergency medical care procedures. Curriculum includes life-threatening emergencies, injuries to various body parts, techniques of moving patients, CPR-BLS, Mandatory Reporting and blood borne pathogens. Successful completion of course requirements allows students to write certification examination for Emergency Medical Responder. Course meets pre-admission requirements for all health occupations.

**Plan of Study**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td><strong>Program Total</strong></td>
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</tbody>
</table>

Emergency Medical Technician

**Certificate**

This certificate provides students with the knowledge and skill necessary to perform basic emergency care and transport. Some advanced skills are taught.
Entrepreneurship

Diploma

This program is designed to prepare individuals to become entrepreneurs. Students will gain the knowledge of entrepreneurship through application of business concepts and ideas in the creation of a business plan. Students must earn a “C” or better in all core courses before graduation in this program.

Plan of Study

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>SDV 108</td>
<td>The College Experience</td>
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<tr>
<td>BUS 102</td>
<td>Introduction to Business</td>
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<tr>
<td>BUS 124</td>
<td>Business Innovation</td>
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<td>BUS 130</td>
<td>Introduction to Entrepreneurship</td>
<td>3</td>
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<tr>
<td>ACC 111</td>
<td>Introduction to Accounting</td>
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<tr>
<td>MKT 110</td>
<td>Principles of Marketing</td>
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<td>MKT 140</td>
<td>Principles of Selling</td>
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<td>Principles of Accounting I</td>
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<td>CSC 110</td>
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<td>HCM 239</td>
<td>Customer Service</td>
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<td>BUS 150</td>
<td>E-Commerce OR</td>
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<tr>
<td>BUS 133</td>
<td>Entrepreneurial Studies</td>
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<td>COM 723</td>
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<tr>
<td>BUS 185</td>
<td>Business Law I</td>
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<td>BUS 197</td>
<td>Leadership Development</td>
<td>3</td>
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</table>

Entrepreneurship Concepts

Certificate

This certificate program is designed to give individuals basic knowledge on how to start a business. Courses cover selling techniques, bookkeeping systems, and basic business plan development.

Plan of Study

<table>
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<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
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<tr>
<td>BUS 102</td>
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<td>MKT 110</td>
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</tbody>
</table>

Fire Fighter/Paramedic

Associate of Applied Science

The Fire Fighter/Paramedic program is designed to prepare students for entry-level employment as a firefighter. By pairing the Firefighter diploma with the existing EMS Paramedic diploma, students can obtain the AAS degree thus fulfilling the ever-growing demand for employees in this field. Current trends show increasing EMS related calls for fire service employees and this paring of offerings will increase student employability. Students must meet entrance requirements for the Paramedic program and be a certified EMT in the State of Iowa or National Registry before enrolling in Term 4 of the program.

Plan of Study

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
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<td>The College Experience</td>
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<tr>
<td>FIR 213</td>
<td>Principles of Emergency Services</td>
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<tr>
<td>FIR 320</td>
<td>Essentials of Firefighter I</td>
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<tr>
<td>FIR 322</td>
<td>Hazardous Materials: Operations Level</td>
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<tr>
<td>ENG 103</td>
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<td>FIR 152</td>
<td>Fire Protection Systems</td>
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<td>Fire Fighter II</td>
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<td>MAT 772</td>
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<td>Introduction to Ethics</td>
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<td>EMS 546</td>
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<tr>
<td></td>
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</tbody>
</table>

Fire Science

Diploma

This program provides an exploration of the fire science program and provides basic knowledge of the field. It provides an overview of the principles and legal aspects of emergency services, fire behavior and combustion, fire strategies and tactics, fire protection systems, and building construction for fire protection.
Plan of Study
SDV 108  The College Experience ........................................... 1
FIR 213  Principles of Emergency Services ................................. 3
FIR 320  Essentials of Firefighter I ............................................ 4
FIR 322  Hazardous Materials: Operations Level ......................... 1
ENG 105  Composition I .......................................................... 3
FIR 152  Fire Protection Systems ............................................... 3
FIR 141  Fire Fighter II ............................................................ 2
EMS 217  Emergency Medical Technician .................................... 7
PEA 148  Physical Fitness I ........................................................ 2
MAT 772  Applied Math ........................................................... 3
FIR 124  Building Construction .................................................. 3
Program Total ........................................................................ 32

Entry-Level Fire Fighter
Certificate
This certificate provides coursework for the skills sought by entry level firefighters. Successful completion of the program allows the student to test for certification with the Iowa Fire Service Training Bureau at the levels of Firefighter One and Firefighter Two. Candidates must be competent in all objectives listed in NFPA Standard 1001, and NFPA 472 Hazmat Operations Level. These certifications along with the EMT certification meet many departmental hiring minimums for entry level into the firefighting profession.

Plan of Study
FIR 320  Essentials of Firefighter I ............................................ 4
FIR 213  Principles of Emergency Services ................................. 3
FIR 322  Hazardous Materials: Operations Level ......................... 1
FIR 152  Fire Protection Systems ............................................... 3
Program Total ........................................................................ 11

Graphic Design
Associate of Applied Science
This program provides students with the knowledge, skills, and a portfolio needed for employment as a designer. This field involves the use of specialized software combined with creativity, design, and problem solving skills to create visual communication. This program focuses on developing the creativity and software skills necessary to be competitive in this field. It is completed with an internship in the graphic design field that allows the student to transfer academic skills to a professional environment.

Plan of Study
SDV 108  The College Experience ........................................... 1
GRA 131  Digital Layout ......................................................... 3
GRA 140  Digital Imaging ........................................................ 3
GRA 201  Design Principles I ................................................... 3
GRA 241  Creative Career Seminar ........................................... 3
SMM 101  Social Media Explored ............................................... 3
ENG 105  Composition I .......................................................... 3
GRA 132  Digital Layout II ......................................................... 3
GRA 180  Interactive Design ..................................................... 3
GRA 207  Design Principles II .................................................. 3
GRA 209  Vector Drawing ........................................................ 3
GRA 208  Creative Career Seminar II ....................................... 1
SOC 110  Introduction to Sociology .......................................... 3
ART 186  Digital Photography .................................................. 3
MAT 772  Applied Math ........................................................... 3
GRA 141  Digital Imaging II ...................................................... 3
GRA 173  Typography .............................................................. 3
GRA 202  Portfolio I ............................................................... 3
GRA 248  Interactive Publications ............................................. 1
GRA 286  Creative Media ........................................................ 3
GRA 325  Digital Color Theory ................................................. 3
GRA 203  Portfolio II ............................................................... 3
GRA 240  Project Management for Creative Careers .................... 2
GRA 246  Design Concepts and Trends ...................................... 3
GRA 255  Motion Media Design I ............................................. 3
GRA 700  Capstone for Creative Careers ................................... 1
GRA 932  Internship ............................................................... 2
Program Total ........................................................................ 69

Marketplace Design
Diploma
This program increases students’ visual language and builds an understanding of the connection between research, process and creative results. The curriculum focuses on how branding, marketing and design communications can influence success in the marketplace and basic knowledge of the tools and software used to create it.

Marketplace Design Curriculum
SDV 108  The College Experience ........................................... 1
GRA 131  Digital Layout ......................................................... 3
GRA 140  Digital Imaging ........................................................ 3
GRA 201  Design Principles I ................................................... 3
GRA 241  Creative Career Seminar ........................................... 3
SMM 101  Social Media Explored ............................................... 3
ENG 105  Composition I .......................................................... 3
GRA 132  Digital Layout II ......................................................... 3
GRA 180  Interactive Design ..................................................... 3
GRA 207  Design Principles II .................................................. 3
GRA 209  Vector Drawing ........................................................ 3
GRA 208  Creative Career Seminar II ....................................... 1
SOC 110  Introduction to Sociology .......................................... 3
Program Total ........................................................................ 33
Hospitality Management

Associate of Applied Science

This program prepares students with the skills necessary to serve as front-line managers at hotels, restaurants and clubs. Students gain practical experience with hands on training and outside work experiences. This program includes instruction in hospitality marketing, planning, management and coordination of operations.

Plan of Study

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDV 108</td>
<td>The College Experience</td>
<td>1</td>
</tr>
<tr>
<td>HCM 321</td>
<td>Introduction to Hospitality Industry</td>
<td>1</td>
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<tr>
<td>HCM 100</td>
<td>Sanitation and Safety</td>
<td>2</td>
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<tr>
<td>HCM 335</td>
<td>Introduction to Event Planning</td>
<td>3</td>
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<tr>
<td>CSC 110</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>MKT 110</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BUS 102</td>
<td>Introduction to Business</td>
<td>3</td>
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<tr>
<td>HCM 239</td>
<td>Customer Service</td>
<td>2</td>
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<tr>
<td>HCM 262</td>
<td>Financial Management, Purchasing and Cost Control</td>
<td>2</td>
</tr>
<tr>
<td>HCM 610</td>
<td>Property Operations Management</td>
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<tr>
<td>CLS 212</td>
<td>Diversity</td>
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<td>MAT 772</td>
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<td>MGT 101</td>
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<td>ACC 111</td>
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<td>ADM 154</td>
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<td>BUS 197</td>
<td>Leadership Development</td>
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<td>PHI 105</td>
<td>Introduction to Ethics</td>
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<td>HCM 310</td>
<td>Hospitality Law</td>
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<td>MGT 170</td>
<td>Human Resource Management</td>
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<td>MGT 174</td>
<td>Training and Employee Development</td>
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<td>SPC 112</td>
<td>Public Speaking</td>
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<tr>
<td>HCM 610</td>
<td>Property Operations Management</td>
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</tbody>
</table>

Program Total: 65

Hospitality Operations

Diploma

This program prepares students for basic entry-level positions with food and safety, customer service and event planning, purchasing and cost control and general hospitality functions. Students gain fundamental knowledge and skills that may lead to positions in hotels, restaurants or other hospitality industries.

Plan of Study

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<tr>
<td>MKT 110</td>
<td>Principles of Marketing</td>
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<tr>
<td>BUS 102</td>
<td>Introduction to Business</td>
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</table>

Program Total: 34

Hospitality Operation Concepts

Certificate

This certificate provides a comprehensive review of the growing and demanding hospitality field. Students are exposed to all of the operations functions associated with the field, gaining skills necessary for career growth.

Plan of Study

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<tr>
<td>HCM 610</td>
<td>Property Operations Management</td>
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</tbody>
</table>

Program Total: 15

Human Resources Management

Associate of Applied Science

This program provides the skills necessary to enter the field of Human Resource Management. Graduates will be able to perform entry-level functions in the human resources department of business and industry. Typical entry-level work includes interviewing applicants, administering pre-employment tests, conducting new hire orientation, processing transfers, promotions, and terminations. Human resource workers may also analyze job duties, write job descriptions, calculate payroll, and maintain accident reports. They work with the computerized flow of information and reports about employees, their benefits and programs. Students must earn a “C” or better in all core courses before participating in an internship, service learning, or on-the-job training. A “C” or better in all core courses is also required for graduation.
Plan of Study

SDV 108  The College Experience...........................................1
BUS 102  Introduction to Business........................................3
MKT 110  Principles of Marketing...........................................3
MGT 170  Human Resource Management.................................3
MAT 772  Applied Math.........................................................3
CSC 110  Introduction to Computers........................................3
ADM 154  Business Communication......................................3
BUS 185  Business Law I.........................................................3
ECN 120  Principles of Macroeconomics.................................3
ACC 131  Principles of Accounting I......................................4
PSY 102  Human & Work Relations........................................3
MGT 101  Principles of Management.......................................3
MGT 178  Employment Law....................................................3
MGT 200  Managing Diversity...............................................3
BUS 197  Leadership Development........................................3
SPC 122  Interpersonal Communication................................3
ACC 161  Payroll Accounting...............................................3
MGT 174  Training and Employee Development.......................3
MGT 248  Staffing.................................................................3
BUS 124  Business Innovation...............................................3
MGT 938  On-the-Job Training................................................2
PHI 105  Introduction to Ethics..............................................3
Program Total.................................................................64

Human Resources

Diploma

This diploma program is appropriate for both newcomers to the human resource field and those with some experience who wish to expand their knowledge base. Graduates of this program are encouraged to enroll in the Human Resources Management program which leads to an Associate of Applied Science degree.

Plan of Study

SDV 108  The College Experience...........................................1
MGT 170  Human Resource Management.................................3
MGT 178  Employment Law....................................................3
MGT 200  Managing Diversity...............................................3
MAT 772  Applied Math.........................................................3
CSC 110  Introduction to Computers........................................3
ADM 154  Business Communication......................................3
MGT 174  Training and Employee Development.......................3
MGT 177  Staffing.................................................................3
BUS 124  Business Innovation...............................................3
BUS 185  Business Law I.........................................................3
PSY 102  Human & Work Relations........................................3
Program Total.................................................................34

Mechanical Engineering Technology

Associate of Applied Science

This program provides students with the opportunity to enter the engineering technology field as a drafter, designer, or various other positions within an engineering or manufacturing design team. The program of study includes computer-assisted drafting, design engineering practices, and mechanical design. Students will be exposed to basic metallurgy, material identification, material strengths and proper manufacturing procedures related to machining and manufacturing.

Plan of Study

SDV 108  The College Experience...........................................1
DRF 113  Fundamentals of Technical Drawing..........................3
MFG 286  Job Planning, Benchwork and Layout (NIMS).............3
CAD 267  Two-Dimensional (2-D) I..........................................3
CAD 269  CAD Two-Dimensional (2-D) II.................................3
MAT 772  Applied Math.........................................................3
CAD 277  3-Dimensional (3-D) Modeling I..............................3
CAD 279  CAD 3-Dimensional (3-D) Modeling II......................3
CAD 285  Computer Aided Drafting for Industry.....................4
MFG 141  Geometric Dimensioning and Tolerancing..................2
COM 753  Technical Communications....................................3
CSC 110  Introduction to Computers.......................................3
PSY 102  Human & Work Relations........................................3
MAT 777  Applied Algebra/Trigonometry.................................3
MFG 206  Manufacturing Processes I....................................3
MFG 322  Introduction to CAD/CAM......................................3
EGT 410  PLTW - Principles of Engineering............................3
MFG 125  Intro to Automation...............................................4
MFG 542  Machine Design....................................................3
EGT 151  Virtual Reality for Manufacturing............................3
MFG 148  Manufacturing Design............................................4
EGT 159  Statics & Structural Design....................................4
EGT 169  Mechanism & Motion.............................................4
Program Total.................................................................71

Manufacturing

Diploma

This program provides students with hands-on training in the use of conventional and automated machining and manufacturing equipment and software. Today manufacturing includes the use of computers, robots, 3D printing, CNC-computer numerical controllers, virtual reality, and many automated processes. Students will have the opportunity to work with industry recognized equipment and software such as HAAS, MasterCam, AutoCAD and ProEngineer.
Plan of Study

SDV 108 The College Experience................................. 1
MFG 206 Manufacturing Processes I............................. 3
MFG 322 Introduction to CAD/CAM............................. 3
EGT 410 PLTW - Principles of Engineering..................... 3
MFG 125 Intro to Automation .................................... 4
MFG 542 Machine Design ......................................... 3
MAT 772 Applied Math............................................. 3
EGT 151 Virtual Reality for Manufacturing........................ 3
EGT 159 Statics & Structural Design............................. 4
EGT 169 Mechanism & Motion .................................... 4
MFG 148 Manufacturing Design ................................. 4
COM 753 Technical Communications .......................... 3

Program Total .......................................................... 38

Industrial Drafting Technology

Diploma

This diploma will provide students with hands-on, industry-relevant drafting, design and Computer Assisted Drafting (CAD) training using the most-recent computer software such as AutoCAD and Solidworks. Students in this program will understand the fundamentals of drafting and design of two-dimensional drawings and quickly progress to three-dimensional designs and models. Students learn the proper sketching, computer drafting techniques and views of drawings.

Plan of Study

SDV 108 The College Experience................................. 1
DRF 113 Fundamentals of Technical Drafting .................... 3
MFG 286 Job Planning, Benchwork and Layout (NIMS) ....... 3
CAD 267 Two-Dimensional (2-D) I ............................. 3
CAD 269 CAD Two-Dimensional (2-D) II ........................ 3
MAT 772 Applied Math............................................. 3
CAD 277 3-Dimensional (3-D) Modeling I ....................... 3
CAD 279 CAD 3-Dimensional (3-D) Modeling II ............... 3
CAD 285 Computer Aided Drafting for Industry ............... 4
MFG 141 Geometric Dimensioning and Tolerancing .......... 2
COM 753 Technical Communications .......................... 3

Program Total .......................................................... 31

Medical Assistant

Diploma

This program prepares students to be multi-skilled allied health professionals specifically trained in administrative, laboratory and clinical procedures. The program is accredited by the Commission on Accreditation of Allied Health Programs (www.caahep.org) upon recommendation by the Medical Assisting Review Board (MAERB). National certification is available to graduates.

Plan of Study

SDV 108 The College Experience................................. 1
HSC 114 Medical Terminology .................................... 3
BIO 163 Essentials of Anatomy and Physiology ............. 4
ADM 105 Introduction to Keyboarding ......................... 1
MAP 123 Administrative Medical Office Procedures .......... 3
HIT 248 Essentials of Medical Coding .......................... 2
MAP 333 Fundamentals of Medical Assisting I ................ 4
HSC 143 Pharmacology ............................................. 3
MAP 141 Medical Insurance ....................................... 3
MAP 215 Medical Laboratory Techniques ...................... 4
MAP 338 Fundamentals of Medical Assisting II ............... 4
HSC 218 Clinical Pathology for Allied Health ................. 3
HIT 313 Medical Office Computer Applications ............... 1
MAP 402 Medical Law and Ethics ............................... 2
ADM 154 Business Communication ............................. 3
PSY 102 Human & Work Relations .............................. 3
MAP 610* Medical Assistant Practicum ......................... 3

*All required courses must be complete prior to the practicum experience.

Program Total .......................................................... 47

Medical Scribe

Diploma

This program prepares individuals to serve as a medical scribe. Medical scribes are individuals trained in medical documentation who assist a medical provider throughout his/her day. They serve as a personal assistant to the provider, allowing them to be more efficient and productive by creating and maintaining the patient’s medical record under the provider’s supervision. Using scribes allow the provider to focus entirely on the patient. Students must achieve a grade point average of 2.0 (C) or above in all program requirements.

Plan of Study

SDV 108 The College Experience................................. 1
HSC 114 Medical Terminology .................................... 3
BIO 163 Essentials of Anatomy and Physiology ............. 4
HIT 136 Scribe Fundamentals I ................................... 1
HIT 248 Essentials of Medical Coding .......................... 2
MAP 215 Medical Laboratory Techniques ...................... 4
MAP 338 Fundamentals of Medical Assisting II ............... 4
HSC 218 Clinical Pathology for Allied Health ................. 3
HIT 313 Medical Office Computer Applications ............... 1
HIT 337 Medical Assistant Practicum ......................... 4
HIT 338 Medical Assistant Practicum ......................... 4
CSC 110 Introduction to Computers ............................. 3
HSC 143 Pharmacology ............................................. 3
HSC 218 Clinical Pathology for Allied Health ................. 3
HIT 236 Scribe Fundamentals II .................................. 4
HIT 301 Electronic Health Records .............................. 3
MAP 134 Medical Transcription I ................................. 3
PSY 102 Human & Work Relations .............................. 3

Program Total .......................................................... 37
Medical Scribe - Advanced Standing

Certificate

The Medical Scribe - Advanced Standing certificate will allow students with a previous degree in Nursing, Paramedic, or Medical Assisting to gain additional knowledge to serve as a medical scribe. Medical scribes are trained in medical documentation and assist a medical provider throughout his/her day. They serve as a personal assistant to the provider to help make them more efficient and productive. The primary function of a medical scribe is the creation and maintenance of the patient’s medical record. The scribe will document the patient’s history, the provider’s interaction with the patient, the procedures performed, the results of laboratory tests, and other important information. Using scribes allow the provider to focus entirely on the patient. Scribes can also function as patient chaperones during physical examinations. This protects the provider from litigation. Scribes can easily retrieve or research needed information from the patient’s medical record saving the provider time in searching for needed information. Scribes can also participate in patient education, retrieving needed supplies/equipment during the visit. Using scribes can also save time by completing the medical record entry while the provider is in the room and not having to wait for dictation to be completed. Students must achieve a grade point average of 2.0 (C) or above in all program requirements.

Plan of Study

<table>
<thead>
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<th>Course Title</th>
<th>Credits</th>
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<td>HIT 136</td>
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<tr>
<td>MAP 134</td>
<td>Medical Transcription I</td>
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<tr>
<td>HIT 236</td>
<td>Scribe Fundamentals II</td>
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<td>Program Total</td>
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</table>

Networking Administration and Security

Associate of Applied Science

This program is a comprehensive course of study. Students will be trained for computer PC repair and maintenance, operating systems installation and troubleshooting, computer networking, and system administration and security. Through both theory and hands-on instruction, students will achieve a thorough understanding of the design, installation, maintenance, and troubleshooting of computers, operating systems and wired/wireless networks.

Specific network instruction includes LAN/WAN system design, installation, configuration, administration and troubleshooting. Network and system security issues will be addressed as they pertain to each individual course.

Upon completion of this degree, the students will be better prepared to take national certification exams which may be taken on campus at the Western Iowa Tech Testing Center. The course fees for most classes include the cost of the national certification exam voucher.

Plan of Study

<table>
<thead>
<tr>
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<th>Course Title</th>
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</thead>
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<tr>
<td>SDV 108</td>
<td>The College Experience</td>
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<tr>
<td>NET 161</td>
<td>IT Essentials I: PC Hardware and Software</td>
<td>4</td>
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<tr>
<td>NET 162</td>
<td>IT Essentials II: Advanced PC Hardware and Software</td>
<td>3</td>
</tr>
<tr>
<td>NET 170</td>
<td>Configuring Windows</td>
<td>4</td>
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<tr>
<td>MAT 772</td>
<td>Applied Math</td>
<td>3</td>
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<tr>
<td>NET 217</td>
<td>CCNA Exploration Network Fundamentals</td>
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<tr>
<td>NET 218</td>
<td>CCNA Exploring Routing Concepts</td>
<td>3</td>
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<tr>
<td>NET 155</td>
<td>Introduction to Wireless Networks</td>
<td>3</td>
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<tr>
<td>NET 171</td>
<td>Installing &amp; Configuring Windows Server</td>
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<tr>
<td>NET 612</td>
<td>Fundamentals of Network Security</td>
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<td>COM 723</td>
<td>Workplace Communications</td>
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<td>NET 501</td>
<td>Basic Linux Operating System</td>
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<td>NET 219</td>
<td>CCNA Exploration Switching and Wireless</td>
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<td>CCNA Exploration Accessing the WAN</td>
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<td>NET 172</td>
<td>Administering Windows Server</td>
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<td>SPC 122</td>
<td>Interpersonal Communication</td>
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<td>NET 478</td>
<td>Information Storage and Management</td>
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<td>NET 173</td>
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<td>Human &amp; Work Relations</td>
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<td>Program Total</td>
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</table>

Computer Support Technician

Diploma

This program prepares the student to perform a wide range of computer PC troubleshooting and maintenance. Students will also be trained to perform entry-level LAN network troubleshooting, diagnosis, network monitoring, and maintenance of LAN networks. Students also receive hands-on training with various computer applications and hardware.

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<td>MAT 772</td>
<td>Applied Math</td>
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</table>
**Help Desk Technician**  
*Certificate*

This certificate program provides training in computer PC repair. Students will gain a fundamental understanding of a PC through hands-on and theory based instruction. Specific topics include computer hardware and software installation, troubleshooting and maintenance related to a career as a PC repairer or someone in a help desk position.

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</tr>
<tr>
<td>NET 170</td>
<td>Configuring Windows</td>
<td>4</td>
</tr>
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</table>

Program Total ................................................. 11

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**Nursing**  
*Associate Degree in Nursing*

This program generally prepares individuals in the knowledge, techniques and procedures for promoting health, providing care for sick, disabled, infirmed, or other individuals or groups. Includes instruction in the administration of medication and treatments, assisting a physician during treatments and examinations, referring patients to physicians and other health care specialists and planning education for health maintenance.

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<td>PNN 625</td>
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<td>SOC 110</td>
<td>Introduction to Sociology</td>
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<tr>
<td>MAT 772</td>
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<tr>
<td>ENG 105</td>
<td>Composition I</td>
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</table>

Program Total ................................................. 36

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**Practical Nursing**  
*Diploma*

This program prepares individuals to assist in providing general nursing care under the direction of a registered nurse, physician or dentist. Includes instruction in taking patient vital signs, applying sterile dressings, patient health education, and assistance with examinations and treatment. Pre-requisite: CNA Certification.

**Plan of Study**

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<td>Human Anatomy and Physiology IA w/lab</td>
<td>4</td>
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<tr>
<td>PSY 111</td>
<td>Introduction to Psychology</td>
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</tr>
<tr>
<td>BIO 151</td>
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<tr>
<td>BIO 173/174</td>
<td>Human Anatomy and Physiology IIA w/lab</td>
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<td>PSY 121</td>
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<tr>
<td>PNN 625</td>
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Program Total ................................................. 73

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**IV Therapy Concepts and Review**  
*Certificate*

**Plan of Study**

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Program Total ................................................. 3

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**Nursing Assistant**  
*Certificate*

**Plan of Study**

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<td>Nurse Aide Clinical</td>
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Program Total ................................................. 4

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**Medication Aide**  
*Certificate*

**Plan of Study**

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Program Total ................................................. 3
Paralegal / Legal Assistant

Associate of Applied Science

This program will provide students with the legal knowledge and administrative skills to serve as paralegals, working closely with not only attorneys in law firms, but also corporations, real estate companies, government agencies and the banking industry.

The courses taught in the program will focus on realistic projects, case studies, and practical application of classroom instruction. In both the classroom and through internships the students will develop professional networking relationships and have the opportunity to investigate various aspects of the paralegal/legal assistant profession. The program provides the educational background enabling the student to prepare for and take the NALA and NALS national certification exams.

### Plan of Study

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<td>Electronic Records System</td>
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<td>PRL 164</td>
<td>Legal Applications and Practices</td>
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<td>BUS 186</td>
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</table>

Paralegal / Legal Assistant - Advanced Standing

Diploma

The Paralegal - Advanced Standing Diploma will provide students with a previous degree additional legal knowledge to serve as paralegals, working with not only attorneys in law firms, but also corporations, real estate companies, government agencies and the banking industry. Completion of a previous degree is required to enter this program.

### Plan of Study

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Legal Secretary

Diploma

The Legal Secretary Diploma will provide students with the basic legal knowledge and administrative skills to serve attorneys in law firms, or support legal departments in corporations, real estate companies, government agencies, and the banking industry.

### Plan of Study

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</table>
Paralegal / Legal Assistant - Advanced Standing Part Time

Diploma

The Paralegal - Advanced Standing Diploma will provide students with a previous degree with additional legal knowledge to serve as paralegals. This part time option will allow students to spread the classwork out and allow them to maintain a job. Completion of a previous degree is required to enter this program.

Plan of Study

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<tr>
<td>BUS 185</td>
<td>Business Law I</td>
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<td>ENG 105</td>
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<td>PRL 281</td>
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</table>

Pharmacy Technician

Diploma

This program will prepare students for an entry-level pharmacy technician positions in both institutional and community pharmacy setting. A pharmacy technician is an individual who, under the supervision of a pharmacist, assist in the day-to-day pharmacy operations that do not require the professional judgement of a pharmacist. Graduates are eligible to take the National Pharmacy Technician Certification Examination.

Plan of Study

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<tr>
<td>PHR 135</td>
<td>Pharmacy Calculations and Compounding</td>
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<td>PHR 941</td>
<td>Practicum</td>
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<td>Introduction to Keyboarding</td>
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<td>HSC 114</td>
<td>Medical Terminology</td>
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<tr>
<td>BIO 163</td>
<td>Essentials of Anatomy and Physiology</td>
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Physical Therapist Assistant (PTA)

Associate of Applied Science

Accredited by the Commission in Accreditation in Physical Therapy Education (CAPTE)

Physical therapist assistants work under the supervision of a physical therapist. Duties include assisting the physical therapist in implementing treatment programs according to the plan of care as developed by the physical therapist.

Plan of Study

<table>
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<th>Course</th>
<th>Title</th>
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<td>PTA 104</td>
<td>Introduction to Physical Therapy</td>
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<td>PTA 130</td>
<td>Activities of Daily Living</td>
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<td>HSC 114</td>
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<td>HSC 218</td>
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<td>PTA 189</td>
<td>Physical Agents</td>
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<td>PTA 260</td>
<td>Management of Clinical Services</td>
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</table>
Plumbing Systems

Diploma

This program prepares individuals to pursue a career as a licensed plumber. Plumbers make it possible to transport water, air, steam, gases, wastes, and different kinds of liquids throughout all types of buildings, from homes and offices to factories and hospitals. The students will have hands-on opportunities to install, maintain, and repair plumbing pipes, fixtures, and appliances. This program also includes instruction in blueprint reading and final inspection and testing of all finished systems while adhering to the local codes and standards that are enforced by the State of Iowa. Students who complete the WITCC Plumbing Systems Diploma Program have the opportunity to take a test to enter the WITCC Plumbing Apprenticeship program. If students pass the test, at a 75% rate, they may earn credit for Year 1 of the WITCC Plumbing Apprenticeship program. In order for students to begin Year 2 of the apprenticeship program, they must be business sponsored and working 2000 hours annually. Upon completing the WITCC Plumbing Apprenticeship Program, which has had the standards approved by the Department of Labor, Office of Apprenticeship, completers will be eligible to take the Iowa journeyman plumbing licensing examination.

Plan of Study

<table>
<thead>
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<th>Title</th>
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<td>BMA 175</td>
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<tr>
<td>ELE 112</td>
<td>Basic Electrical Theory</td>
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<td>CON 112</td>
<td>Blueprint Reading and Estimating</td>
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<td>PLU 170</td>
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Residential Plumbing

Certificate

This certificate will prepare the students to install, maintain, repair, and troubleshoot residential plumbing equipment and fixtures. The student will be introduced to residential codes in both the Uniform Plumbing Code (UPC), and International Plumbing Code (IPC). Students will be trained in a real world environment with hands-on lab activities. Students attaining this certificate will be eligible for employment as an apprentice, by plumbing contractors. Students may receive credit for coursework taken and skills learned toward completion of Apprenticeship Related Training Instruction (RTI) requirements.

Plan of Study

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<th>Title</th>
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<td>BMA 175</td>
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<td>CON 112</td>
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</table>

Police Science–Corrections

Associate of Applied Science

This program is designed for the student who wishes to work in the field of corrections or take classes to transfer to a four-year institution. The graduate will be prepared for positions in law enforcement as well as positions with private security, corrections, juvenile work, and private investigation.

Plan of Study

<table>
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<tr>
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<th>Title</th>
<th>Units</th>
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<td>CRJ 100</td>
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<td>CRJ 133</td>
<td>Constitutional Criminal Procedure</td>
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<td>CRJ 140</td>
<td>Criminal Investigation</td>
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<td>Introduction to Psychology</td>
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<td>Ethics in Criminal Justice</td>
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<td>CRJ 224</td>
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<tr>
<td>ENG 106</td>
<td>Composition II</td>
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</table>
Police Science Technology

Associate of Applied Science

This program provides students with classroom, laboratory, and hands-on training as preparation for entry into law enforcement.

Traditional classroom academic education is combined with laboratory courses and the practical application of learned skills to prepare students for job entry. Although traditional law enforcement careers are the goal of most entering students, other available options include positions with private security, corrections, juvenile work, and private investigation. Students may elect to continue their education in colleges accepting transfer credits.

Plan of Study

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<tr>
<th>Course</th>
<th>Credits</th>
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<td>CRJ 131</td>
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<td>CRJ 231</td>
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</table>

Law Enforcement Advanced Diploma

Diploma

This program is an advanced-standing diploma which requires that students must be a 2 or 4 year graduate from an Iowa School with a degree in Police Science or Criminal Justice to enter. Students must have approval from the Police Academy Director and meet the requirements of the Iowa Law Enforcement Academy.

Plan of Study

<table>
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<tr>
<th>Course</th>
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Must have 9 credits from the following list: CRJ 100, 101, 110, 113, 120, 131, 133, 139, 140, 144, 150, 158, 200, 201, 210, 217, 220, 221, 223, 224, 231, 241, 243, 253, 255, 257, 260, 262, or 280.

Professional Photography

Associate of Applied Science

This program introduces students to the photography profession and provides the basic skills needed to photograph and operate cameras and other photography equipment and software. It also includes instruction in specialized camera and equipment operation and maintenance, applications to commercial and industrial needs, and photography business operations.

Plan of Study

<table>
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</table>
Professional Photography Technician

**Diploma**
This program introduces students to the photography profession and provides the basic skills needed to photograph and operate cameras and other photography equipment and software.

**Plan of Study**

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<tr>
<td>GRA 100</td>
<td>Mac OS</td>
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<td>ART 184</td>
<td>Photography</td>
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<td>PHT 135</td>
<td>Digital Fundamentals</td>
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<tr>
<td>PHT 104</td>
<td>Introduction to Lighting</td>
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<td>PHT 107</td>
<td>Digital Darkroom</td>
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<td>SPC 122</td>
<td>Interpersonal Communication</td>
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<td>PHT 136</td>
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<td>PHT 202</td>
<td>Basic Portraiture</td>
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<tr>
<td>PHT 204</td>
<td>Basic Commercial Photography</td>
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<td>ART 101</td>
<td>Art Appreciation</td>
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<td>PHT 947</td>
<td>Photography Practicum</td>
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Robotics and Automation

**Associate of Applied Science**
This program prepares individuals to apply technical knowledge and high-tech skills to integrate, install, maintain, and repair industrial and automated systems. Students will learn entry-level skills to perform work on mechanical and electrical systems such as motors, conveyors, controls, programmable controllers (PLC’s), and other electro-mechanical devices related to manufacturing or production. An emphasis will be placed on learning the proper techniques and procedures to work safely.

<table>
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<td>ELE 112</td>
<td>Basic Electrical Theory</td>
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<tr>
<td>ELE 195</td>
<td>Motor Control</td>
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<td>IND 141</td>
<td>Power Transmission</td>
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<td>HCR 410</td>
<td>Electrical Applications I</td>
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<td>ELE 222</td>
<td>Supervisory Control and Data Acquisition</td>
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<td>EGT 312</td>
<td>Variable Frequency Drives for Motor Control</td>
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<td>EGT 420</td>
<td>PLTW - Digital Electronics</td>
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<td>Digital Photography</td>
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<td>ATR 121</td>
<td>Automation Systems/Robotics Lab</td>
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<td>ATR 276</td>
<td>Networking for Industry</td>
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<td>ELE 241</td>
<td>HMI/Motion Control Fundamentals</td>
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Surgical Technology

**Associate of Applied Science**

The Surgical Technology program is designed to prepare students to function as members of the surgical team in hospitals and clinics with registered nurses and surgeons in the operating room. The graduate is qualified to prepare the surgical environment and function as a team member during the operative procedures. National certification is available to graduates. The surgical technology program is accredited by the Commission on Accreditation for Allied Health Education Programs (CAAHEP). Job openings are available nationwide for graduates of the surgical technology program. Employment of surgical technologists is projected to grow 15 percent from 2014 to 2024, much faster than the average for all occupations. (Bureau of Labor statistics). Admission to the surgical technology program requires applicants to meet program-specific criteria.
information on application procedures and acceptance, contact the Admissions Office at WITCC. Students must
achieve a grade point average of 2.00 (C) or above in all program requirements.

**Plan of Study**

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<td>SUR 111</td>
<td>Surgical Procedures I</td>
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<td>SUR 127</td>
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<td>SUR 132</td>
<td>Surgical Technology Practice</td>
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<td>SUR 133</td>
<td>Surgical Asepsis and Instrumentation</td>
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<td>BIO 169</td>
<td>Human Anatomy and Physiology IA w/lab</td>
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<td>SUR 112</td>
<td>Surgical Procedures II</td>
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<td>SUR 145</td>
<td>Patient Care Concepts</td>
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<td>Pharmacology for the Surgical Technologist</td>
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<td>BIO 174</td>
<td>Human Anatomy and Physiology IIA w/lab</td>
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<td>SUR 213</td>
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**Technical Electives may include coursework from the following prefixes:**

- ACC, ADM, ADN, AGB, AGC, AGH, AGM, AGP, AGS, AGT, AGV, ATR, AUT, BCA, BIR, BPT, BUS, CAD, CIN, CIS, CON, CRJ, CRR, CSC, DEA, DRF, ECE, ECN, EGT, ELE, ELM, EMS, FIN, FIR, GRA, HCM, HCR, HIT, HSC, IND, MAP, MFG, MGT, MOT, NET, OHM, PHT, PNN, PLL, PTA, SUR, WEL, WTT

**Electives may include coursework from the technical electives or from the following prefixes:**

- ANT, ART, BIO, CHM, CLS, COM, DRA, ECE, EDU, ENG, ENV, ELF, FLF, FLS, GEO, HIS, HUM, LIT, MAT, MMS, MUA, MUS, PEA, PEC, PHE, PHT, PHI, PHS, PHY, POL, PSY, REL, SDV, SOC; SPC with course number of at least 100 or higher.

---

**Veterinary Assistant**

**Diploma**

This program prepares students to work as veterinary assistants in a variety of settings including animal hospitals and clinics, animal shelters, laboratories, zoos, and animal parks. The veterinary assistant provides basic care, performs laboratory procedures, and assists in the veterinary clinic with other functions.

The program includes classroom theory, laboratory, and internship experience in local veterinary clinics. Students receive hands-on experience with animals.

**Plan of Study**

<table>
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<th>Course Title</th>
<th>Credits</th>
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<td>Veterinary Medical Terminology</td>
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<td>AGV 156</td>
<td>Veterinary Reception and Administration Skills</td>
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<td>AGV 176</td>
<td>Animal Nursing (Small &amp; Large)</td>
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<td>AGS 242</td>
<td>Animal Health</td>
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<td>AGV 102</td>
<td>Animal Handling &amp; Restraint</td>
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<td>Veterinary Surgical Skills</td>
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<td>AGV 174</td>
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<td>AGS 113</td>
<td>Survey of the Animal Industry</td>
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## Video Game Design

### Associate of Applied Science

This program provides an understanding of the full video game development artistic pipeline. Students refine technical skills and artistic knowledge for creating game ready assets (acceptable polygon count and topology, UV layout, and physical-based shading) and learn how to import those assets into a game engine and develop a functioning video game with game ready lighting and shadows. The program also prepares students for completing a production ready portfolio and taking an art test.

### Plan of Study

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<td>3D Modeling and Topology</td>
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<tr>
<td>CIS 221</td>
<td>Scripting Basics</td>
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<tr>
<td>CIS 369</td>
<td>Video Game Portfolio Preparation</td>
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<tr>
<td>CIS 383</td>
<td>Digital Composition and Graphics Pipeline I</td>
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<td>CIS 386</td>
<td>Game Design</td>
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<td>CIS 389</td>
<td>Level Design I</td>
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<td>CIS 384</td>
<td>Digital Composition and Graphics Pipeline II</td>
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<td>CIS 395</td>
<td>Game Engines</td>
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<td>ART 370</td>
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<td>ART 371</td>
<td>Traditional &amp; New Media 3-D Design</td>
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<td>Digital Color, Lighting &amp; Rendering</td>
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<td>Animation for Games</td>
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<td>CIS 393</td>
<td>Introduction to 3-D Gaming Art</td>
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<td>CIS 414</td>
<td>Environmental Art and World Building</td>
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<td>Video Game Portfolio Refinement</td>
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<td>Gaming Final Submission</td>
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<td>Introduction to Psychology</td>
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</table>

Program Total: 67

## Video Game Fundamentals

### Certificate

This program provides specialized training for the video game art production pipeline. Students further develop foundational artistic and technical skills that are applied to developing video game assets that include advanced modeling, texturing, physical-based shading, and lighting. The program also prepares students for developing a portfolio for job application.

### Plan of Study

<table>
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<th>Course Title</th>
<th>Units</th>
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<td>Scripting Basics</td>
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<td>CIS 369</td>
<td>Video Game Portfolio Preparation</td>
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<tr>
<td>CIS 383</td>
<td>Digital Composition and Graphics Pipeline I</td>
<td>2</td>
</tr>
<tr>
<td>CIS 386</td>
<td>Game Design</td>
<td>3</td>
</tr>
<tr>
<td>CIS 389</td>
<td>Level Design I</td>
<td>3</td>
</tr>
<tr>
<td>CIS 384</td>
<td>Digital Composition and Graphics Pipeline II</td>
<td>2</td>
</tr>
<tr>
<td>CIS 395</td>
<td>Game Engines</td>
<td>3</td>
</tr>
<tr>
<td>CIS 404</td>
<td>Environmental Modeling</td>
<td>3</td>
</tr>
<tr>
<td>CIS 405</td>
<td>Video Game Portfolio Polish</td>
<td>1</td>
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<tr>
<td>ART 370</td>
<td>Traditional &amp; New Media 2-D Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 371</td>
<td>Traditional &amp; New Media 3-D Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 373</td>
<td>Digital Color, Lighting &amp; Rendering</td>
<td>2</td>
</tr>
</tbody>
</table>

Program Total: 17

## Mobile Game and Application Developer

### Diploma

The Mobile Game and Application Development Diploma is designed to provide students the skills and knowledge required to design, develop, and deploy games and applications for one of the mobile devices platform (iOS, Android, or Windows Mobile) using current development tools and frameworks.
Plan of Study

SDV 108 The College Experience............................................. 1
CIS 123 Swift and the Internet of Things.......................... 3
CIS 132 Programming Fundamentals.............................. 4
CIS 193 Application Development I................................................. 3
CIS 383 Digital Composition and Graphics Pipeline I........ 2
CIS 392 Interface Design for Games........................................... 3
ART 240 Digital Art and 3D Design........................................... 3
CIS 293 Application Development II.......................................... 4
CIS 388 Game Programming...................................................... 4
CIS 721 Engine Scripting Basics.............................................. 4
MAT 772 Applied Math.............................................................. 3
SPC 122 Interpersonal Communication.................................... 3

Program Total................................................................. 37


Video and Media Production

Associate of Applied Science

The Video and Media Production program presents the techniques and technologies of video and film production as they are implemented in the film, video, television, and interactive media industries. Through a combination of hands-on exercises, lecture, group projects, and real-world applications, students are introduced to video production with industry standard tools. Familiarity with professional standards and the aesthetic considerations of video and film production are emphasized. Skills students will acquire include the ability to shoot and edit video, lighting techniques for location and studio productions, and basic scripting for television and film. Graduates are prepared to seek entry-level employment in the broadcast and cable television and video production industry.

Plan of Study

SDV 108 The College Experience............................................. 1
ELE 101 Industrial Safety.......................................................... 1
CIN 104 Media Production and Equipment.......................... 3
CIS 106 Introduction to Editing Software............................... 1
CIN 117 Introduction to Motion Graphics............................... 2
MUS 285 Audio Production & Equipment I.............................. 3
MMS 142 Media Literacy OR..................................................... 3
MMS 101 Mass Media............................................................... 3

CIN 116 Management and Operations........................................ 3
CIN 118 Technical Production in Media................................. 3
CIN 125 Integrated Motion Graphics and Video................... 2
CIN 126 Video Field Production................................................. 3
CIN 161 Video Practicum I.......................................................... 1
COM 723 Workplace Communications..................................... 3

Program Total................................................................. 30

Video and Media Production Assistant

Diploma

The Video and Media Production Assistant diploma prepares students to work in a variety of production positions on a film or video crew. Skills will include operation of video and sound equipment, lighting, and basic software applications.

Plan of Study

SDV 108 The College Experience............................................. 1
ELE 101 Industrial Safety.......................................................... 1
CIN 104 Media Production and Equipment.......................... 3
CIN 106 Introduction to Editing Software............................... 2
CIN 117 Introduction to Motion Graphics............................... 2
MUS 285 Audio Production & Equipment I.............................. 3
MMS 142 Media Literacy OR..................................................... 3
MMS 101 Mass Media............................................................... 3

CIN 116 Management and Operations........................................ 3
CIN 118 Technical Production in Media................................. 3
CIN 125 Integrated Motion Graphics and Video................... 2
CIN 126 Video Field Production................................................. 3
CIN 161 Video Practicum I.......................................................... 1
COM 723 Workplace Communications..................................... 3

Program Total................................................................. 30

Welding Technology

Associate of Applied Science

This program, the Associate of Applied Science in Welding Technology, prepares students for a career in the manufacturing, fabrication, and structural steel industries. The program includes hands-on application of SMAW, GMAW, Oxy Fuel, FCAW, GTAW and Robotic Weld processes, using ferrous and non-ferrous metals, and evaluated to AWS D1.1 structural steel code or other
codes (ASME sect. IX, API 1104, etc.) as appropriate. The program’s curriculum is aligned to AWS national standards for entry level welders and includes safety, blueprint reading, and welding procedure specifications. Upon successful completion of all competencies, students will have the opportunity to test for numerous AWS and ASME certifications. Students may incur additional fees for testing for these certifications.

Plan of Study

SDV 108    The College Experience ........................................ 1
ELE 101    Industrial Safety .................................................. 1
WEL 120    Oxy Fuel Welding and Cutting ................................ 2
WEL 425    Measuring, Layout, and Applied Weld Symbols .......... 1
WEL 147    ARC Welding Introduction (SMAW) ....................... 3
WEL 423    Intro to GMAW .................................................... 2
WEL 422    GMAW for Production ............................................ 4
MAT 772    Applied Math ....................................................... 3

WEL 148    ARC Welding Intermediate (SMAW) ....................... 3
WEL 424    Intro to Pulse Arc GMAW Welding ......................... 3
WEL 420    Intermediate Pulse Arc GMAW Welding .................. 4
WEL 110    Welding Blueprint Reading .................................... 2
COM 723    Workplace Communications .................................. 3

WEL 208    Introduction to Fabrication .................................... 2
WEL 164    Arc Welding II (SMAW) ......................................... 4
WEL 112    Welding Blueprint Reading/Advanced ..................... 2
WEL 191    Gas Tungsten Arc Welding .................................... 3
WEL 421    Flux Core Arc Welding (FCAW) .............................. 4

SPC 122    Interpersonal Communication .................................. 3
WEL 700    Robotic Welding ................................................... 4
WEL 292    Pipe Welding/SMAW - Uphill ................................ 4
WEL 294    Pipe Welding GTAW/SMAW ................................. 4
BCA 206    Applied Computer Concepts ................................. 3

Program Total ...................................................................... 68

Industrial Welding

Diploma

This program is designed to train a welder in all the basic competencies necessary to gain entry into the welding industry. Students will learn basic safety procedures, how to weld ferrous and non-ferrous metals, how to perform out of position welds using GMAW and SMAW processes, and be introduced to common hand tools used in the industry.

Plan of Study

SDV 108    The College Experience ........................................ 1
ELE 101    Industrial Safety .................................................. 1
WEL 120    Oxy Fuel Welding and Cutting ................................ 2
WEL 425    Measuring, Layout, and Applied Weld Symbols .......... 1
WEL 147    ARC Welding Introduction (SMAW) ....................... 3
WEL 423    Intro to GMAW .................................................... 2
WEL 422    GMAW for Production ............................................ 4
MAT 772    Applied Math ....................................................... 3

WEL 148    ARC Welding Intermediate (SMAW) ....................... 3
WEL 424    Intro to Pulse Arc GMAW Welding ......................... 3
WEL 420    Intermediate Pulse Arc GMAW Welding .................. 4
WEL 110    Welding Blueprint Reading .................................... 2
COM 723    Workplace Communications .................................. 3

Program Total ...................................................................... 32

Production Welding

Certificate

This certificate program is designed to provide a student the basic skills needed to obtain entry level employment in the welding industry. Students will learn entry level skills in GMAW (MIG), SMAW (stick), and Oxy Fuel processes. Students will also be able to obtain OSHA 10 hour certification and have experience with basic measuring and layout tools.

Plan of Study

SDV 108    The College Experience ........................................ 1
ELE 101    Industrial Safety .................................................. 1
WEL 120    Oxy Fuel Welding and Cutting ................................ 2
WEL 425    Measuring, Layout, and Applied Weld Symbols .......... 1
WEL 147    ARC Welding Introduction (SMAW) ....................... 3
WEL 423    Intro to GMAW .................................................... 2
WEL 422    GMAW for Production ............................................ 4
MAT 772    Applied Math ....................................................... 3

Program Total ...................................................................... 17

Qualified Welding

Certificate

This advanced standing certificate program is designed to advance a welder’s skill by training them in the GTAW (TIG) and FACW (Flux Core) welding processes and increasing their skill in out of position SMAW (stick). Students will also learn advanced blueprint reading. Competencies are based on skills needed for custom production, industrial services and steel construction industries.

Plan of Study

WEL 208    Introduction to Fabrication .................................... 2
WEL 164    Arc Welding II (SMAW) ......................................... 4
WEL 112    Welding Blueprint Reading/Advanced ..................... 2
WEL 191    Gas Tungsten Arc Welding .................................... 3
WEL 421    Flux Core Arc Welding (FCAW) .............................. 4

Program Total ...................................................................... 15
**Associate of Arts Degree**

**General Studies**

The Associate of Arts degree provides students with a learning foundation in communications, social and behavioral sciences, and the humanities. While the A.A. degree program offers opportunities for personal enrichment and career enhancement, it is primarily designed for students interested in transferring to four-year college or university for the purpose of earning a baccalaureate degree. Courses leading to the A.A. degree are also designed for students interested in preprofessional studies for such fields as law, political science, education, and social science.

Students who intend to transfer credits to another college or university are responsible for identifying the specific program requirements at the transfer institution. In order to meet specific program requirements, the student should coordinate his/her sequence of courses with a WITCC academic advisor and transfer staff from the destination institution. Current catalogs for most U.S. colleges and universities are available online.

**Associate of Arts Requirements**

The Associate of Arts degree will be awarded to students who meet the following requirements:

1. Satisfactorily complete a minimum of 64 semester hours from an approved A.A. degree program as outlined in the College catalog.
2. Earn a minimum cumulative grade point average of 2.0 ("C" average).
3. Earn a minimum of fifteen (15) college transfer credit hours at WITCC.
4. File an application for graduation at the Enrollment Services Office or online by the filing deadline.
5. Resolve all financial obligations to the College and return all library and College materials.

NOTE: Developmental education courses (courses numbered below 100) do not fulfill degree requirements.

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**Associate of Science Degree**

The Associate of Science (A.S.) degree provides students with a foundation in the general studies as well as the sciences. Students will gain knowledge and skills which can be generalized to the world outside the classroom. The degree and the courses leading to the A.S. degree are designed for students interested in pursuing further education in science, technology, engineering, and math (STEM). As a result, a minimum of 20 credits are necessary from the math and sciences. While the A.S. degree program offers opportunities for personal and career enhancement, such degree is designed for students who wish to transfer to four-year institutions which offer full Bachelor of Science degrees.

Students who intend to transfer credits to another college or university are responsible for identifying the specific program requirements at the transfer institution. In order to meet specific program requirements, the student should coordinate his/her sequence of courses with a WITCC academic advisor and transfer staff from the destination institution. Current catalogs for most U.S. colleges and universities are available in the WITCC Learning Achievement Center and in the Career Development Center.

**Associate of Science Requirements**

The Associate of Science degree will be awarded to students who meet the following requirements:

1. Satisfactorily complete a minimum of 64 semester hours from an approved A.S. degree program as outlined in the College catalog.
2. Earn a minimum cumulative grade point average of 2.0 ("C" average).
3. Earn a minimum of fifteen (15) college transfer credit hours at WITCC.
4. File an application for graduation at the Enrollment Services Office or online by the filing deadline.
5. Resolve all financial obligations to the College and return all library and College materials.

NOTE: Developmental education courses (courses numbered below 100) do not fulfill degree requirements.
**Associate of Arts**  
**Degree Requirements**

**College Success**  
SDV 108 The College Experience (required) 1  
(Take in 1st semester of enrollment)

**English and Speech (9 credits required)**  
Take each of these courses:  
ENG 105 English Composition I 3  
ENG 106 English Composition II 3  
SPC 112 Public Speaking 3

**Mathematics/Laboratory Science (8 credits required)**  
Must include one math course and one laboratory science course from the following:  
**Mathematics**  
MAT 111 Math for Liberal Arts 4  
MAT 117 Math for Elementary Teachers 3  
MAT 121 College Algebra 4  
Or approved higher level course.  
See advisor for course selection.  
**Laboratory Science**  
BIO 105 Introductory Biology 4  
BIO 125 Plant Biology 4  
BIO 163 Essentials of Anatomy and Physiology 4  
CHM 122 Intro to General Chemistry 4  
ENV 111 Environmental Science 4  
PHS 120 Exploring Physical Science 4  
Or approved higher level course in these subjects.  
See advisor for course selection.

**Diversity (3 credits required)**  
CLS 212 or SOC 212 Diversity 3

**Social and Behavioral Sciences (6 credits required)**  
Take one course from Social and Political Sciences:  
**Social and Political Sciences**  
ECN 120 Principles of Macroeconomics 3  
ECN 130 Principles of Microeconomics 3  
POL 111 American Government 3  
POL 112 State and Local Government 3  
PSY 111 Introduction to Psychology 3  
PSY 121 Developmental Psychology 3  
SOC 110 Introduction to Sociology 3  
SOC 120 Marriage and Family 3  
*Other accepted courses include: POL 121, 125, 201. See advisor for course selection.

Take one additional course from Social and Political Sciences above or from History and Diverse Cultures:  
**History and Diverse Cultures**  
ANT 105 Cultural Anthropology 3  
GEO 121 World Regional Geography 3  
HIS 110 Western Civ: Ancient to Early Modern 3  
HIS 111 Western Civ: Early Modern to Present 3  
HIS 151 US History to 1877 3  
HIS 152 US History since 1877 3  
*Other accepted courses include: HIS 211, LIT 150, SOC 200, 210. See advisor for course selection.

**Humanities (9 credits required)**  
Take three courses from at least two subject areas:  
ART 101 Art Appreciation 3  
ART 203 Art History 3  
DRA 101 Introduction to Theatre 3  
DRA 112 American Film 3  
ENG 221 Creative Writing 3  
FLF 141 Foreign Language - French 4  
FLG 141 Foreign Language - German 4  
FLS 141 Foreign Language - Spanish 4  
HUM 101 Introduction to Humanities 3  
LIT 101 Introduction to Literature 3  
MMS 101 Mass Media 3  
MUS 100 Music Appreciation 3  
PHI 101 Introduction to Philosophy 3  
PHI 105 Introduction to Ethics 3  
REL 101 Survey of World Religions 3  
SPC 122 Interpersonal Communications 3  
*Other accepted courses include: ART 204, FL(F,G,S) 142, 231, 232 HUM 220, LIT133, 185,189, 287, MUS 202, PHI 111, REL 150. See advisor for course selection.

**Distributed Requirement (6 credits required)**  
Take 2 additional courses from any of these areas: Communication, Mathematics, Laboratory Science, Social and Behavioral Sciences, and Humanities

**Electives**  
See your advisor to select appropriate elective courses to complete 64 total credit hours to complete the degree. Developmental courses (courses numbered less than 100) do not apply toward the degree. Up to 16 Career and Technical Credit hours may be used toward the degree. See your advisor for further information.

**Total Credit Hours Required**  
64

**Required Transfer Level Credits Earned at WITCC**  
15

**Minimum Cumulative WITCC G.P.A. Required**  
2.00

**Computer Literacy/Technology – Suggested Elective**  
Computer literacy is critical to your success as a college student. It is strongly recommended that you consider your competency in computer applications. Some major programs at transfer institutions may require a computer applications course. Consult with your advisor regarding this suggested course.

CSC 110 Introduction to Computers 3

This is a general transfer degree. Students should consult with their intended transfer institution to make appropriate course selections in each of the required areas as well as in elective credits to complete the degree. Some transfer institutions may require specific courses in each of the requirement areas based on the student’s intended major. Always consult with academic advisors prior to registration as they will have suggested program of studies consistent with the student’s intended major.
## Associate of Science Degree Requirements

**College Success**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDV 108</td>
<td>The College Experience (required)</td>
<td>1</td>
</tr>
</tbody>
</table>

(Take in 1st semester of enrollment)

**English and Speech (9 credits required)**

Take each of these courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 105</td>
<td>English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 106</td>
<td>English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>SPC 112</td>
<td>Public Speaking</td>
<td>3</td>
</tr>
</tbody>
</table>

**Mathematics/Laboratory Science (20 Credits required)**

Must include one math course and one laboratory science course from the following:

**Mathematics**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 111</td>
<td>Math for Liberal Arts</td>
<td>4</td>
</tr>
<tr>
<td>MAT 121</td>
<td>College Algebra</td>
<td>4</td>
</tr>
<tr>
<td>MAT 129</td>
<td>Precalculus</td>
<td>5</td>
</tr>
<tr>
<td>MAT 130</td>
<td>Trigonometry</td>
<td>3</td>
</tr>
<tr>
<td>MAT 157</td>
<td>Statistics</td>
<td>4</td>
</tr>
<tr>
<td>MAT 201</td>
<td>Applied Calculus</td>
<td>5</td>
</tr>
<tr>
<td>MAT 211,217,219</td>
<td>Calculus I, II and III</td>
<td>5/5/4</td>
</tr>
</tbody>
</table>

**Laboratory Science**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 116 &amp; 117</td>
<td>Biology IB and IIB</td>
<td>4/4</td>
</tr>
<tr>
<td>BIO 168, 169, 173 &amp; 174</td>
<td>Anatomy and Physiology I and II</td>
<td>4/4</td>
</tr>
<tr>
<td>BIO 186</td>
<td>Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>CHM 166 &amp; 176</td>
<td>General Chemistry I and II</td>
<td>5/5</td>
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<tr>
<td>CHM 261 &amp; 271</td>
<td>Organic Chemistry I and II</td>
<td>4/4</td>
</tr>
<tr>
<td>PHY 162 &amp; 172</td>
<td>College Physics I and II</td>
<td>4/4</td>
</tr>
<tr>
<td>PHY 212 &amp; 222</td>
<td>Classical Physics I and II</td>
<td>5/5</td>
</tr>
</tbody>
</table>

*Students should complete both of any sequenced Laboratory Science courses to apply to the degree and ensure transferability of coursework.*

See advisor for course selection.

**Diversity (3 credits required)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLS 212 or SOC 212</td>
<td>Diversity</td>
<td>3</td>
</tr>
</tbody>
</table>

**Social and Behavioral Sciences (3 credits required)**

Take one course from the following:

**Social and Political Sciences**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECN 120</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECN 130</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>POL 111</td>
<td>American Government</td>
<td>3</td>
</tr>
<tr>
<td>POL 112</td>
<td>State and Local Government</td>
<td>3</td>
</tr>
<tr>
<td>PSY 111</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 121</td>
<td>Developmental Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 110</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 120</td>
<td>Marriage and Family</td>
<td>3</td>
</tr>
</tbody>
</table>

*Other accepted courses include: POL 121, 125, 201*

See advisor for course selection.

**Humanities (6 credits required)**

Take two courses from two different subject areas:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 101</td>
<td>Art Appreciation</td>
<td>3</td>
</tr>
<tr>
<td>ART 203</td>
<td>Art History</td>
<td>3</td>
</tr>
<tr>
<td>DRA 101</td>
<td>Introduction to Theatre</td>
<td>3</td>
</tr>
<tr>
<td>DRA 112</td>
<td>American Film</td>
<td>3</td>
</tr>
<tr>
<td>ENG 221</td>
<td>Creative Writing</td>
<td>3</td>
</tr>
<tr>
<td>FLG 141</td>
<td>Foreign Language - German</td>
<td>4</td>
</tr>
<tr>
<td>FLG 141</td>
<td>Foreign Language - French</td>
<td>4</td>
</tr>
<tr>
<td>FLS 141</td>
<td>Foreign Language - Spanish</td>
<td>4</td>
</tr>
<tr>
<td>HUM 101</td>
<td>Introduction to Humanities</td>
<td>3</td>
</tr>
<tr>
<td>LIT 101</td>
<td>Introduction to Literature</td>
<td>3</td>
</tr>
<tr>
<td>MMS 101</td>
<td>Mass Media</td>
<td>3</td>
</tr>
<tr>
<td>MUS 100</td>
<td>Music Appreciation</td>
<td>3</td>
</tr>
<tr>
<td>PHI 101</td>
<td>Introduction to Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHI 105</td>
<td>Introduction to Ethics</td>
<td>3</td>
</tr>
<tr>
<td>REL 101</td>
<td>Survey of World Religions</td>
<td>3</td>
</tr>
<tr>
<td>SPC-122</td>
<td>Interpersonal Communications</td>
<td>3</td>
</tr>
</tbody>
</table>

*Other accepted courses include: ART 204, FL(F,G,S) 142, 231, 232 HUM 220, 287, LIT 133, 185, MUS 202, PHI 111, REL 150.*

See advisor for course selection.

**Electives**

See your advisor to select appropriate elective courses to complete 64 total credit hours to complete the degree. Developmental courses (courses numbered less than 100) do not apply toward the degree. Up to 16 Career and Technical Credit hours may be used toward the degree. See your advisor for further information.

**Total Credit Hours Required**

64

**Required Transfer Level Credits Earned at WITCC**

15

**Minimum Cumulative WITCC G.P.A. Required**

2.00

**Computer Literacy/Technology – Suggested Elective**

Computer literacy is critical to your success as a college student. It is strongly recommended that you consider your competency in computer applications. Some major programs at transfer institutions may require a computer applications course. Consult with your advisor regarding this suggested course.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC 110</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
</tbody>
</table>

This is a general transfer degree. Students should consult with their intended transfer institution to make appropriate course selections in each of the required areas as well as in elective credits to complete the degree. Some transfer institutions may require specific courses in each of the requirement areas based on the student’s intended major. Always consult with academic advisors prior to registration as they will have suggested program of studies consistent with the student’s intended major.
The Associate of Arts (AA) and Associate of Science (AS) degree are designed for transfer to a 4-year institution. These suggested plans of study will lead to completion of the AA or AS degree requirements listed on page 79 and 80. These are suggested plans of study only and it is critical that students confer with their intended transfer institution, as well as their academic advisor, to make the best course selections in meeting degree requirements. The college maintains a large number of articulation agreements that specifically outline efficient transfer plans to partner colleges and universities. For full program details and course listings visit witcc.edu/programs.

### Associate of Arts – Accounting Emphasis

**Suggested Plan of Study**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDV 108</td>
<td>The College Experience</td>
<td>1</td>
</tr>
<tr>
<td>ACC 131</td>
<td>Principles of Accounting I</td>
<td>4</td>
</tr>
<tr>
<td>MAT 121</td>
<td>College Algebra</td>
<td>4</td>
</tr>
<tr>
<td>CSC 110</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>FIN 121</td>
<td>Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>ACC 132</td>
<td>Principles of Accounting II</td>
<td>4</td>
</tr>
<tr>
<td>ECN 120</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>SPC 122</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>PHI 105</td>
<td>Introduction to Ethics</td>
<td>3</td>
</tr>
<tr>
<td>SPC 112</td>
<td>Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>ACC 231</td>
<td>Intermediate Accounting I</td>
<td>4</td>
</tr>
<tr>
<td>ENG 105</td>
<td>Composition I</td>
<td>3</td>
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<tr>
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**Program Total** ............................................... 65

### Associate of Arts – Agriculture Transfer Emphasis

**Suggested Plan of Study**

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**Program Total** ............................................... 66

### Associate of Arts – Addictions Counseling Emphasis

**Chemical Dependency and Co-Occurring Disorder Counseling**

**Suggested Plan of Study**

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<td>SOC 217</td>
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**Program Total** ............................................... 66

www.witcc.edu/programs
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### Associate of Arts – Art and Design Emphasis

**Suggested Plan of Study**

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**Program Total**: 66 credits

### Associate of Arts – Business Administration Emphasis

**Suggested Plan of Study**

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**Program Total**: 66 credits

### Associate of Science – Biology Emphasis

**Suggested Plan of Study**

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Associate of Science – Chemistry Emphasis

Suggested Plan of Study

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Associate of Arts – Education – Early Childhood Emphasis

Suggested Plan of Study

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<td>Infant/Toddler Care and Education</td>
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### Associate of Arts – English Emphasis

#### Suggested Plan of Study

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<td>Minority Voices in U.S. Literature</td>
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<td>Western Civilization: Ancient to Early Modern</td>
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Program Total: 65

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### Associate of Science – Mathematics Emphasis

#### Suggested Plan of Study

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Program Total: 64

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### Associate of Arts – History Emphasis

#### Suggested Plan of Study

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Program Total: 65

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Western Iowa Tech Community College 2019–2020 Catalog  www.witcc.edu/programs
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### Associate of Arts – Music Emphasis

**Suggested Plan of Study**

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**Program Total: **69

**MUS XXX Electives:** MUA 101, MUA 120, MUA 124, MUA 126, MUA 143, MUA 170, MUA 180, MUS 138, MUS 150, OR MUS 189.

### Associate of Arts – Political Science Emphasis

**Suggested Plan of Study**

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**Program Total:** 65

### Associate of Arts – Psychology Emphasis

**Suggested Plan of Study**

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## Associate of Arts – Social Work Emphasis

### 2+2 Transfer with University of South Dakota

**Suggested Plan of Study**

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**Program Total** ........................................... 64

## 2+2 Transfer with Briar Cliff University

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**Program Total** ........................................... 64

## Associate of Arts – Sociology Emphasis

### 2+2 Transfer with University of South Dakota

**Suggested Plan of Study**

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**Program Total** ........................................... 64
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### Associate of Science – Sports Medicine - General Studies Emphasis

#### Suggested Plan of Study

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<td>Kinesiology</td>
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<td>PET 400</td>
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<td>PET 140</td>
<td>Athletic Training Practicum I</td>
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<tr>
<td>PET 150</td>
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<td>BIO 151</td>
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<td>PET 171</td>
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<td>MAT 157</td>
<td>Statistics</td>
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Program Total ........................................... 64

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### Associate of Science – Sports Medicine - Athletic Training Emphasis

#### Suggested Plan of Study

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>SOC 200</td>
<td>Minority Group Relations</td>
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<td>MAT 157</td>
<td>Statistics</td>
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<td>HIS 152</td>
<td>U.S. History Since 1877</td>
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<td>PSY 121</td>
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<td>SOC 120</td>
<td>Marriage and Family</td>
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<td>SPC 112</td>
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<tr>
<td>SOC 212</td>
<td>Diversity</td>
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<tr>
<td>SOC 210</td>
<td>Men, Women and Society</td>
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<td>SOC 250</td>
<td>Sociology of Deviance</td>
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<tr>
<td>LIT 101</td>
<td>Introduction to Literature</td>
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</tbody>
</table>

Program Total ........................................... 64

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www.witcc.edu/programs

Western Iowa Tech Community College 2019–2020 Catalog
## Course Numbers

The Iowa community colleges have a common course numbering system for all credit courses offered by Iowa community colleges. The numbering system facilitates transfer and articulation processes for Iowa community college students.

### Key to Course Prefixes

<table>
<thead>
<tr>
<th>A B C</th>
<th>1 2 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Discipline prefix of program or subject</strong></td>
<td><strong>Course Numbers</strong></td>
</tr>
<tr>
<td>ACC Accounting</td>
<td>DRA Film and Theatre</td>
</tr>
<tr>
<td>ADM Administrative Assistant</td>
<td>DRF Drafting</td>
</tr>
<tr>
<td>ADN Associate Degree Nursing</td>
<td>ECE Early Childhood Education</td>
</tr>
<tr>
<td>AGA Agriculture – Agronomy</td>
<td>ECN Economics</td>
</tr>
<tr>
<td>AGB Agriculture – Farm Management Business</td>
<td>EDU Education</td>
</tr>
<tr>
<td>AGC Agriculture – Comprehensive Miscellaneous</td>
<td>EGT Engineering Technology</td>
</tr>
<tr>
<td>AGH Agriculture – Horticulture</td>
<td>ELE Electrical Technology</td>
</tr>
<tr>
<td>AGM Agriculture – Mechanics</td>
<td>ELT Electronics</td>
</tr>
<tr>
<td>AGP Agriculture – Precision Ag</td>
<td>EMS Emergency Medical Services</td>
</tr>
<tr>
<td>AGS Agriculture – Animal Science</td>
<td>ENG English Composition</td>
</tr>
<tr>
<td>AGT Agriculture – Technology</td>
<td>ENV Environmental Science</td>
</tr>
<tr>
<td>AGV Agriculture – Veterinary Tech</td>
<td>ESL Intensive ESL</td>
</tr>
<tr>
<td>ANT Anthropology</td>
<td>FIN Finance</td>
</tr>
<tr>
<td>ART Art</td>
<td>FIR Fire Science</td>
</tr>
<tr>
<td>ATR Automation Tech and Robotics</td>
<td>FLF Foreign Language–French</td>
</tr>
<tr>
<td>AUT Automotive Technology</td>
<td>FLG Foreign Language–German</td>
</tr>
<tr>
<td>BCA Business Computer Apps</td>
<td>FLS Foreign Language–Spanish</td>
</tr>
<tr>
<td>BIO Biology</td>
<td>GEO Geography</td>
</tr>
<tr>
<td>BIR Band Instrument Repair</td>
<td>GRA Graphic Communications</td>
</tr>
<tr>
<td>BMA Building Maintenance</td>
<td>HCM Hospitality, Culinary Arts and Management</td>
</tr>
<tr>
<td>BPT Bioprocess Technology</td>
<td>HCR Heating and Air Conditioning</td>
</tr>
<tr>
<td>BUS Business</td>
<td>HIS History</td>
</tr>
<tr>
<td>CAD Computer Aided Drafting</td>
<td>HIT Health Information Technology</td>
</tr>
<tr>
<td>CHM Chemistry</td>
<td>HSC Health Science</td>
</tr>
<tr>
<td>CIN Cinematography</td>
<td>HUM Humanities</td>
</tr>
<tr>
<td>CIS Computer Programming</td>
<td>IND Industrial Technology</td>
</tr>
<tr>
<td>CLS Cultural Studies</td>
<td>LIT Literature</td>
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<tr>
<td>COM Communication</td>
<td>MAP Medical Assistant</td>
</tr>
<tr>
<td>CON Construction</td>
<td>MAT Mathematics</td>
</tr>
<tr>
<td>CRJ Criminal Justice</td>
<td>MFG Manufacturing</td>
</tr>
<tr>
<td>CRR Collision Repair and Refinish</td>
<td>MGT Management</td>
</tr>
<tr>
<td>CSC Computer Science</td>
<td>MKT Marketing</td>
</tr>
<tr>
<td>DEA Dental Assistant</td>
<td>MMS Mass Media Studies</td>
</tr>
<tr>
<td>DRA Film and Theatre</td>
<td>MUA Applied Music</td>
</tr>
<tr>
<td>DRT Dental Hygiene</td>
<td>MUS General Music</td>
</tr>
<tr>
<td>EDU Education</td>
<td>NET Computer Networking</td>
</tr>
<tr>
<td>EGT Engineering Technology</td>
<td>PEA Physical Education Activities</td>
</tr>
<tr>
<td>ELE Electrical Technology</td>
<td>PEC Coaching Officiating</td>
</tr>
<tr>
<td>EMS Emergency Medical Services</td>
<td>PEH General Physical Education and Health</td>
</tr>
<tr>
<td>FIN Finance</td>
<td>PET Physical Education Training</td>
</tr>
<tr>
<td>FIR Fire Science</td>
<td>PHI Philosophy</td>
</tr>
<tr>
<td>FLF Foreign Language–French</td>
<td>PHR Pharmacy Tech</td>
</tr>
<tr>
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<td>PHS Physical Science</td>
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<tr>
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<td>PHT Commercial Photography</td>
</tr>
<tr>
<td>GEO Geography</td>
<td>PHY Physics</td>
</tr>
<tr>
<td>GRA Graphic Communications</td>
<td>PLU Plumbing</td>
</tr>
<tr>
<td>HCM Hospitality, Culinary Arts and Management</td>
<td>PNN Practical Nursing</td>
</tr>
<tr>
<td>HCR Heating and Air Conditioning</td>
<td>POL Political Science</td>
</tr>
<tr>
<td>HIS History</td>
<td>PRL Paralegal</td>
</tr>
<tr>
<td>HIT Health Information Technology</td>
<td>PSY Psychology</td>
</tr>
<tr>
<td>HSC Health Science</td>
<td>PTA Physical Therapist Assistant</td>
</tr>
<tr>
<td>HUM Humanities</td>
<td>REL Religion</td>
</tr>
<tr>
<td>IND Industrial Technology</td>
<td>SDV Student Development</td>
</tr>
<tr>
<td>LIT Literature</td>
<td>SMM Social Media and Marketing</td>
</tr>
<tr>
<td>MAP Medical Assistant</td>
<td>SOC Sociology</td>
</tr>
<tr>
<td>MAT Mathematics</td>
<td>SPC Speech</td>
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<tr>
<td>MFG Manufacturing</td>
<td>SUR Surgical Technology</td>
</tr>
<tr>
<td>MGT Management</td>
<td>WEL Welding</td>
</tr>
<tr>
<td>MKT Marketing</td>
<td>MUS General Music</td>
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ACC – ACCOUNTING

ACC 111 - Introduction to Accounting  3.00
This course is designed to teach the key concepts and skills required to record a variety of accounting entries for both a service and merchandising business, to prepare financial statements, to record payroll entries, to prepare payroll records and to utilize good cash management skills. The skills learned will prepare students for direct job entry as small business owners and entrepreneurs. These accounting concepts are applied to a variety of companies.

ACC 131 - Principles of Accounting I  4.00
This course is designed to acquaint the student with the basic accounting concepts applicable to the operation of a service oriented or retailing sole proprietorship.

ACC 132 - Principles of Accounting II  4.00
This course is a continuation of Principles of Accounting I with the emphasis on partnership, corporation, cost, and management accounting. Prerequisite: ACC 131

ACC 161 - Payroll Accounting  3.00
This course presents the payroll accounting methods for computing wages and salaries, calculating deductions, journalizing payroll entries, and preparing federal and state government reports. It emphasizes the timeliness and standard procedures of payroll data reporting required of employers. Prerequisite: ACC 111 and ACC 131

ACC 171 - Sales & Use Tax  1.00
This course covers sales and use tax’s constitutional basis, tax basis, administration (including collection and remittance procedures), and audit defense.

ACC 221 - Cost Accounting  3.00
This course covers the procedures necessary for the accumulation and analysis of accounting information in a manufacturing setting. Topics covered include job-order, process cost, and standard cost systems as well as variance analysis and budgeting. Prerequisite: ACC 132

ACC 231 - Intermediate Accounting I  4.00
This course is an in-depth study of the underlying principles, procedures, and reporting requirements necessary to prepare and interpret the financial reports of business entities. Studies include a theoretical foundation of financial accounting, financial statements, cash, receivables, inventory, operational assets and depreciation. Prerequisite: ACC 132

ACC 232 - Intermediate Accounting II  4.00
This course is an in-depth study of the underlying principles, procedures, and reporting requirements necessary to prepare and interpret financial reports of business entities. Topics covered include liabilities, investments in securities, pension plans, leases, earnings per share, and statement of cash flows. Prerequisite: ACC 231

ACC 261 - Income Tax Accounting  3.00
This course is an introduction to federal individual income tax laws. Topics include income, adjustments, deductions, and credits. Prerequisite: ACC 131

ACC 311 - Computer Accounting  3.00
This course utilizes computer software to teach the accounting procedures for service and merchandising businesses. Concepts include processing transactions and generating reports for customers, vendors, inventory, and payroll; generating financial statements; performing closing procedures; and, customizing company setup. Prerequisite: ACC 131 and ACC 111

ACC 917 - Experimental Course  1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

ACC 949 - Special Topics  1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

ADM – ADMINISTRATIVE ASSISTANT

ADM 105 - Introduction to Keyboarding  1.00
This course emphasizes keyboard mastery. It was designed to develop accuracy, speed, and control of the keyboard. Through completion of the lessons, students advance toward a minimum competency level of 30 gross words per minute (GWAM) on a 3-minute official time with a maximum of 3 errors. The alphabetic keys are reviewed three times. In order to pass this course at the end of the semester, you must be able to key 30 wpm for 3 minutes with 3 errors or less. Every lesson contains exercises of 15-sec., 30-sec., and 1-3 minutes timings. Students are encouraged to meet the speed and accuracy goals in each exercise before continuing on to the next exercise. Progress Reports help students evaluate their progress. Using the backspace key and correcting errors is not allowed.

ADM 123 - Document Formatting  3.00
This course is designed for mastery of the alphabetic keyboard. Students will review numeric and symbol keyboard reaches and the formatting of business documents including memorandums, block and modified block letters, reports and tables. Students must take the prerequisite course or type 30 gross words a minute for three minutes with three errors or less. Prerequisite: ADM 105 or Type 30 gross words per minute for 3 minutes with 3 errors or less.

ADM 124 - Document Formatting II  3.00
In this course students’ keyboarding skills are enhanced by developing a balance of speed and accuracy. Emphasis is placed on the development of production skills in formatting business documents and learning advanced features of word processing using the computer. Prerequisite: ADM 123

ADM 131 - Office Calculators  1.00
This course teaches students how to use the numeric keypad with speed and accuracy using industry standards for data entry. Attaining proficiency on three employment tests used by three large interstate corporations helps the student meet employment standards.

ADM 154 - Business Communication  3.00
This course covers the principles of business writing, emphasizing the most important and frequently written business correspondence including business letters, memorandums, and e-mail. Attention is given to logical organization and psychological application of writing procedures as well as proper formatting at the keyboard. Students cover units most appropriate to the needs of their individual programs.

ADM 159 - Proofreading and Editing  3.00
This course covers the proofreading and editing of handwritten, typewritten, and printed material. Grammar principles including sentence structure and correct usage of all parts of speech are addressed, as well as a strong emphasis on punctuation skills. Students will also learn techniques in utilizing business reference tools and language skills within the context of a business environment.
ADN 162 - Office Procedures 3.00
This course familiarizes the student with the many dimensions of the professional secretary's position in a modern day office, such as personal traits, telephone skills, communication processing capabilities, office supplies and equipment, and material utilization. The specific job skills introduced are utilization of business resources, making travel arrangements, arranging meetings and conferences and performing banking responsibilities. The student will be equipped to handle these functions in a modern day office, and will refine skills associate with communication effectively in the office.

ADN 176 - Electronic Records System 3.00
This course provides students the opportunity to create, collect, process, maintain, retrieve, use, store, disseminate, and dispose of records using an electronic records system. Students use the Windows environment to store records according to ARMA (Association of Records Managers and Administrators) alphabetic rules. Numeric, geographic, and subject filing rules are also explored. Students will research and present up-to-date information on retention, retrieval, and storage of records.

ADN 180 - Administrative Management 3.00
This course acquaints students with the broad areas of administrative office management, including the managerial process. It emphasizes application of learned concepts through problem-solving techniques, and includes several specialized areas of study which are generally relegated to office managers. Prerequisite: ADN 123 and ADN 159

ADN 241 - Advanced Office Skills 3.00
The course is a terminal course for office students to demonstrate their knowledge and skills in administrative office procedures and practice. A variety of formats will be used for students to demonstrate proficiencies, including Microsoft Office software review, electronic calendaring and scheduling, proofreading and editing, keyboarding speed and document production, and certification testing. Instructor consent required.

ADN 917 - Experimental Course 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn elective credit based upon the agreed upon credit and contact hours. Instructor permission required.

ADM 932 - Internship II 1.00-4.00
This course provides on-the-job experience on campus or in the business community giving the student experience and practical application of the competencies learned in the Administrative Assistant programs. The internship is coordinated by the college instructor and supervised by an industry professional at the work site. Student must be in the final semester of the program before enrolling in this course. Permission of instructor, 2.0 cumulative GPA and a C (2.0) or better in core courses as defined by the program advisor.

ADM 949 - Special Topics 1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

ADN – ASSOCIATE DEGREE NURSING

ADN 235 - Principles Pharmacology for Nursing 3.00
This course will examine the basic concepts and principles of pharmacology. Major drug classifications and their actions, adverse effects, interactions, and contraindications for use are explored. Emphasis is placed on the nurse's role in safe medication administration, dosage calculation, and patient education with use of the nursing process.

ADN 621 - Nursing III 9.00
A combined course that includes: classroom, lab, and clinical. Nursing III prepares the student to safely manage the care of clients throughout the lifespan and prepares the student for the role of caregiver, manager, and member of profession. Concepts of health, illness, and environment as they relate to nursing practice are discussed. Emphasis is placed on predictable and variable needs of the client utilizing Gordon's Functional Health Patterns within the nursing process. Critical thinking is inherent in the nursing process and is incorporated throughout the course. Completion of WITCC Practical Nursing Program or valid LPN license and 6-8 hours of anatomy and physiology. Prerequisites for the hybrid online section: valid LPN license and 6-8 hours of anatomy and physiology, proof that all

ADN 622 - Nursing IV 9.00
A combined course that includes: classroom, lab, clinical, and preceptorship. Nursing IV prepares the student to safely manage the care of clients throughout the lifespan and prepares the student to assume the registered nurse (RN) roles of caregiver, manager, and member of profession. Concepts of health, illness, and environment as they relate to nursing practice are discussed. Emphasis is placed on the predictable and variable needs of the client utilizing Gordon's Functional Health Patterns within the nursing process. Critical thinking is inherent in the nursing process and is incorporated throughout the course. Clinical preceptorship provides an opportunity for students to mentor with an RN. Students will practice clinical and leadership skills necessary to successfully transition into the role of an entry-level RN. Focus is placed on the enhancement of leadership and collaboration skills, organization, supervision, delegation, prioritization, and management of multiple clients in an acute care setting. Prerequisite: ADN 621, Prerequisite: BIO 186, Prerequisite: PSY 241, Valid LPN license and advisor permission, Corequisite: ADN 235

AGA – Agronomy

AGA 114 - Principles of Agronomy 3.00
This course presents the information necessary to understand the reasons and methods of soil and crop management. The course provides answers to practical crop production questions and introduces students to further study of the sciences involved.

AGA 154 - Fundamentals of Soil Science 3.00
This course covers soil properties affected by their formation due to climate, vegetative cover, parent material, drainage, and topography.

AGA 158 - Soil Fertility 3.00
This course explains the phenomena involved in making and keeping a soil in its most economical, productive state. Students learn why soils must be managed differently due to differences in origin and make up. Laboratory work will be used to increase the understanding of key concepts. Corequisite: AGA 154
AGA 917 - Experimental Course  1.00-4.00
This pilot course is under supervision of a faculty member and is approved by the division chair. The purpose of this course is to guide in the formal development of new curricula. This course may not duplicate any course already in the catalog.

AGA 949 - Special Topics  1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

AGB – AGRICULTURE / FARM MANAGEMENT / BUSINESS

AGB 210 - Agricultural Law  2.00
This course is designed to make the student aware of the legalities of the farm business in regard to estate planning, leasing, contracts, and legal liability.

AGB 235 - Introduction to Agriculture Markets  3.00
This course is an overview of the structure, economics, organization, and function of the world food marketing system. Topics in past, present and future domestic and worldwide market issues are discussed. The course examines how the marketing system is influenced by governmental and private policy and effects those policies have on producers, commodity handlers, processors, middlemen, and consumers. Basic marketing and merchandising strategies are also covered.

AGB 330 - Farm Business Management  3.00
This course is a study of the use of the principles of farm management in developing a farm or farm business operation.

AGB 336 - Agricultural Selling  3.00
This course addresses the principles of selling applied to agricultural settings. Examination of agricultural consumers’ buying habits and the development of sales strategies to meet these consumers’ needs and wants serves as a foundation of the course. Two main activities dominate this course: students spend a day shadowing an agricultural sales professional to observe and report on specific practices, and in a final activity, students prepare and deliver a sales presentation to an agricultural sales professional.

AGB 437 - Commodity Marketing  3.00
This course examines basis, fundamental and technical price analysis, commodity futures, futures options, alternative cash contracts, sources and uses of marketing information, and relevant agricultural marketing strategies.

AGB 466 - Agricultural Finance  3.00
This course is a study of the terminology and tools of agricultural finance. It emphasizes the preparation of financial statements, cash flows, budgets and bookkeeping principles. It also discusses financial risk strategies and credit costs.

AGB 470 - Farm Records, Accounts, Analysis  3.00
This course is a study of the use of the principles of farm management in developing a farm or farm business operation. An emphasis is placed on the importance of records as an essential management tool.

AGB 917 - Experimental Course  1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

AGB 949 - Special Topics  1.00-4.00
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AGC – AGRICULTURE COMPREHENSIVE

AGC 216 - Career Seminar  2.00
This course is designed to help students explore and discover the many opportunities that are available in the profession of agriculture and related industries both nationally and internationally.

AGC 403 - Sustainable Agriculture  2.00
This course provides students the necessary information and knowledge to successfully convert their farming operation from conventional to organic farming, including transitioning farming methods that enhance their future organic farm productivity.

AGC 420 - Issues in Agriculture  3.00
This course provides students the opportunity to collect, discuss, interpret, and defend current economic, environmental and social issues that affect the production of agricultural commodities.

AGC 491 - Experimental Course  1.00
This pilot course is under the supervision of a faculty member and is approved by the division chair. The purpose of this course is to guide in the formal development of new curricula. This course may not duplicate any course already in the catalog.

AGC 936 - Occupational Experience  3.00
This course provides an “on-the-job” experience at a local business. The business will provide a training sponsor in cooperation with an instructor/coordinator from the college staff. Students will gain hands-on experience in observing and by demonstrating the knowledge and skills developed in the classroom. Prerequisite: AGC 420 and AGB 437

AGC 949 - Special Topics  1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

AGH – AGRICULTURE / HORTICULTURE

AGH 284 - Pesticide Application Certification  3.00
This course reviews the materials and testing procedures required to become a certified commercial pesticide applicator.

AGH 917 - Experimental Course  1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

AGH 949 - Special Topics  1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.
AGM – AGRICULTURE / MECHANICS

AGM 155 - Farm Equipment Management  2.00
In this course, students will utilize operator's manuals to find information concerning the operation, lubrication and adjustment of farm machinery. In addition, students will properly adjust and operate the following equipment: 1) row-crop cultivator; 2) square baler; 3) disk/ harrow; and 4) field cultivator. The course will also address safe handling procedures and the use of herbicides, calibration of the field sprayer for proper operation, and adjusting the grain drill to plant soybeans and small seeds.

AGM 917 - Experimental Course  1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

AGM 949 - Special Topics  1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

AGS – AGRICULTURE / PRECISION

AGP 329 - Introduction to GPS  3.00
This course is an introduction to the use of GPS and VRT as it impacts agricultural producers. Students will use field mapping software and GPS systems as part of the class.

AGP 949 - Special Topics  1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

AGS – AGRICULTURE / ANIMAL SCIENCE

AGS 113 - Survey of the Animal Industry  3.00
This lecture and lab course introduces the student to a broad spectrum of animal science. Beef, swine, sheep, dairy, horse and poultry production are presented. Some exotic and nontraditional livestock are discussed.

AGS 226 - Beef Cattle Science  3.00
This course provides students an understanding of the retail beef industry. Students will learn concepts related to the important management decisions cow-calf, yearling-stocker producers must make. Also included are animal health concerns including prevention and treatment strategies. Proper ruminant nutrition balance rations and forage management will also be discussed.

AGS 242 - Animal Health  3.00
This course provides information about the cause, nature, prevention, and treatment of common health problems of farm animals. Topics include identifying animal behavior and developing a herd health program.

AGS 270 - Foods of Animal Origin  3.00
This course is a general agri-food science course that deals with world food needs and available food supplies, types of food and their nutritive value and use, and the methods used and challenges involved in food production, transportation, preservation/processing, storage, distribution, marketing and consumption. The course covers foods of animal origin.

AGS 319 - Animal Nutrition  3.00
This course is a comprehensive study of animal nutrition. Topics include digestive systems, feedstuffs, processing, nutrition values, ration formulation and practical application.

AGS 331 - Animal Reproduction  3.00
This course is a combined lecture and lab course. It is presented with the agriculture student in mind. The first unit, Physiology, addresses cellular digestion, reproduction, genetics and ecology. The second unit, Applications, teaches the practical application of animal science. The third unit instructs students in the interpretation of performance data for judging and evaluating livestock.

AGS 917 - Experimental Course  1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. The purpose of this course is to guide in the formal development of new curricula. This course may not duplicate any course already in the catalog.

AGS 949 - Special Topics  1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

AGT – AGRICULTURE / TECHNOLOGY

AGT 250 - Food and Biosecurity Issues  1.00
This course focuses on threats to food system biosecurity. Students research and discuss contemporary issues regarding biosecurity, vulnerabilities of the food system from pre-harvest through post-processing, consumption and potential threats by class of agents.

AGT 917 - Experimental Course  1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. The purpose of this course is to guide in the formal development of new curricula. This course may not duplicate any course already in the catalog.

AGT 949 - Special Topics  1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

AGV – AGRICULTURE / VETERINARY TECH

AGV 102 - Animal Handling & Restraint  1.00
This course provides hands-on opportunities for students to practice restraint techniques that are needed in the veterinary field. The labs include concepts for blood collection, medicine administration, rope tying, and more. The lab projects involve both individual and team work. Prerequisite: AGV 121, AGV 156, and AGV 176

AGV 109 - Pharmacy Skills  2.00
This course reviews the basic concepts of animal anatomy and physiology in relation to medicine administration. Students are familiarized with veterinary drugs, their modes of administration and specific function in animal body systems. Prerequisite: AGV 121, AGV 156, and AGV 176 Corequisite: AGV 157

AGV 121 - Veterinary Medical Terminology  2.00
This course familiarizes students with the veterinary terminology that is used in practice. Students will learn laboratory, diagnostic and treatment terminology. Corequisite: AGV 156, AGV 176, AGV 102
This course introduces students to veterinary practices, facilities and administrative duties. The course integrates applied human relations, accounting and business procedures that are relevant to the veterinary profession. Corequisite: AGV 121, AGV 176

This course provides information regarding animal anatomic landmarks, terminology and the function of body systems. Comparisons of the structure and function of various animals will be conducted. Prerequisite: AGV 121, AGV 156, AGV 176, Corequisite: AGV 109

This course introduces selected phases of veterinary surgical nursing, application of sterile techniques, and surgical equipment. Topics include pre-anesthetic considerations, general anesthetic agents, anesthesia monitoring and diagnostic imaging techniques. Prerequisite: AGV 102, AGV 121, AGV 156, and AGV 176, Corequisite: AGV 109, AGV 157, AGV 174

This course introduces the basic knowledge of identifying parasites, urine collection, examining blood samples, identification of animal pathogens, and chemical constituents of body fluids. Through the lecture and lab format, students use hands-on activities to integrate theory with application. Prerequisite: AGV 102, AGV 121, AGV 156, AGV 176, Corequisite: AGV 109, AGV 157, AGV 208

This course introduces small and large animal care and management. Students study the history, characteristics, housing, equipment, handling, reproduction, diseases and ailments of small and large animals. Corequisite: AGV 121, AGV 156, AGV 102

This course introduces selected phases of veterinary surgical nursing, application of sterile techniques, and surgical equipment. Topics include pre-anesthetic considerations, general anesthetic agents, anesthesia monitoring and diagnostic imaging techniques. Prerequisite: AGV 102, AGV 121, AGV 156, AGV 176, Corequisite: AGV 109, AGV 157, AGV 174

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

This course gives the student on-the-job training in a field related to veterinary practice or animal care coordinated by the instructor and supervised by an industry professional. Prerequisites include all of the related course material through the second semester as suggested by the school catalog. Prerequisite: AGV 121, AGV 156, AGV 176

This course offers a specialized study project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

This course is a cross-cultural study of the variety of human adaptations to physical, social and cultural environments, primarily in terms of subsistence, technology, social groupings, government, economic organization, religion and aesthetics.
ART 185 - Photography II 3.00
This course is a continuation of Photography I. Students explore advanced camera and darkroom techniques while producing a portfolio of their photographic artwork for formal presentation. Photography as a medium of artistic expression and the critical thought processes occurring through the lens will be investigated. Exploration of alternative processes, studio portrait work, commercial photography, photo technology, and electronic imaging will also be examined. Students will prepare for photographic careers through preparing portfolios and understanding the job interviewing process. A 35mm single-lens Reflex camera is required. Prerequisite: ART 184

ART 186 - Digital Photography 3.00
This course introduces students to the digital camera. Students study and practice the varied artistic applications of digital images as enhanced with computer software. A digital camera is required.

ART 203 - Art History I 3.00
This course is a survey of the visual arts from prehistoric times through the Middle Ages with an emphasis on the relationship between art and social, economic, religious and geographical conditions. It discusses the historical context of contemporary forms of expression when relevant. This course is offered online via the Iowa Community College Online Consortium (ICCOC).

ART 204 - Art History II 3.00
This course is a survey of the visual arts from the Renaissance to the present time with an emphasis on the relationship between art and social, economic, religious and technological development. It stresses the historical context of contemporary forms of expression and examines human concerns as they are revealed in art.

ART 240 - Digital Art and 3D Design 3.00
This course introduces students to key concepts of two-dimensional design, the fundamentals of three-dimensional design and composition, design problem-solving, spatial orientation, and the organizing principles of design such as texture, line, shape, value, mass, and color theory. This course bridges traditional and new media art with an emphasis on application using digital medium.

ART 370 - Traditional & New Media 2-D Design 3.00
This course introduces students to key concepts of two-dimensional design, design problem-solving, and spatial orientation such as texture, line, shape, value, mass, and color theory. The course bridges traditional and new media art with an emphasis on application using digital medium.

ART 371 - Traditional & New Media Art 3-D Design 3.00
This course covers the fundamentals of three-dimensional design and composition. Concepts covered include organizing principles of design, shape, value, color, and texture. It emphasizes application of traditional three-dimensional art concepts using digital medium. New media art design requires synthesizing artistic and technological skills. Prerequisite: CIS 381

ART 373 - Digital Color, Lighting & Rendering 2.00
This course is a study of color theory and use for digital application, digital lighting, and effective rendering. Color theory and digital lighting are particularly relevant to digital artists such as video game designers, cinematographers, and animators. Color and lighting are intrinsically powerful elements of design and understanding color, lighting, and rendering is vital for successful digital design, composition, and art.

ART 947 - Practicum 1.00
This course is designed to allow the student to work, generally on campus, in a faculty supervised activity with well-defined expectations, activities and outcomes, applying the knowledge and skills from prior learning. This will be a coordinated effort between the student, faculty member(s), and the work supervisor involving evaluations and assessment. This course may be repeated for credit. Instructor consent is required.

ART 949 - Special Topics 1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

ATR – AUTOMATION TECH AND ROBOTICS

ATR 120 - Automation Systems/Robotics 3.00
This course introduces basic concepts of industrial process automation and programmed machine movement. Students investigate careers in robotics, automation and the evolution of industrial automated systems. Prerequisite: ELE 112, Corequisite: ATR 121

ATR 121 - Automation Systems/Robotics Lab 3.00
This course introduces the basic concepts of industrial process automation and programmed machine movement in a hands-on setting. Students program various robots to perform industry related tasks. Corequisite: ATR 120

ATR 276 - Networking for Industry 3.00
This course gives the student experiences with common types of networks used in industrial locations. Students learn computer communication techniques and gain hands on experience with RS 232, RS 422 and Ethernet networks. Prerequisite: NET 162

ATR 917 - Experimental Course 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required

A 35mm single-lens Reflex camera is required.

AUT – AUTOMOTIVE TECHNOLOGY

AUT 101 - Introduction to Automotive Engine Repair 1.00
This course is a combined lecture and lab course that provides an introduction to automotive engine part identification, operation and service.

AUT 104 - Introduction to Automotive Technology 3.00
This course provides basic instruction in shop skills including precision measuring, the use of hand tools, power tool use, fittings, fasteners, service manual use and related shop equipment. It covers the basics of electrical systems, drive train, fuel, brakes, heating, air conditioning, wheels and tires. It also emphasizes shop safety practices in each area of study.

AUT 115 - Automotive Shop Safety 1.00
This course is designed to provide basic instruction in shop skills including precision measuring, the use of hand tools, power tool use, fittings, fasteners, service manual use, and related shop equipment. It emphasizes shop safety practices in each area of study.

AUT 128 - Introduction to Automotive Suspension and Steering 1.00
This course is a combined lecture and lab course that provides an introduction to automotive suspension and steering system parts, operation and service.

AUT 141 - Introduction to Automotive Brake Systems 1.00
This course is a combined lecture and lab course that provides an introduction to automotive brake system parts, operation, and service.
AUT 163 - Automotive Engine Repair 3.00
This is a combined lecture and lab course that covers the fundamentals of internal combustion engine operation, service and repair. Students learn theories in practical, hands-on applications in both the classroom and lab exercises. Prerequisite: AUT 101

AUT 164 - Automotive Engine Repair 4.00
This is a combined lecture and lab course that provides information in areas of engine mechanical diagnosis and service. It includes lab experience in the overhaul of a variety of automotive engines, cylinder head service, and engine machining. It also covers overhead cam and multiple valve technology. Prerequisite: AUT 115

AUT 205 - Automotive Automatic Transmissions and Transaxles 5.00
This is a combined lecture and lab course that focuses on the operation; diagnosis, service and overhaul of rear wheel drive automatic transmissions. It includes both mock-up and live repair work in a laboratory setting and covers electronically controlled transmissions and all-wheel drive options. Prerequisite: AUT 115

AUT 304 - Automotive Manual Drive Train and Axles 4.00
This is a combined lecture and lab course that focuses on the operation, repair, and service of manual drive train systems. This course covers drive shafts, FWD axle and joints, manual transmissions; clutches, rear drive axle assemblies, and transfer cases. Prerequisite: AUT 128

AUT 401 - Automotive Suspension and Steering 3.00
This is a combined lecture and lab course that covers the fundamentals of automotive steering and suspension systems, and their service and repair. Students learn theories in practical, hands-on applications in both the classroom and lab exercises. Prerequisite: AUT 128

AUT 404 - Automotive Suspension and Steering 4.00
This is a combined lecture and lab course that studies the operation and service of today’s suspension systems. It covers suspension service and alignment techniques and includes training on a-frame and McPherson suspension repair, rack and pinion steering, front and rear alignment, four-wheel alignment, electronic alignment systems, wheel balancing, and electronic leveling control systems. Prerequisite: AUT 115

AUT 502 - Automotive Brake Systems 2.00
This is a combined lecture and lab course that covers the fundamentals of automotive brake system operation, service and repair. Students learn theories in practical, hands-on applications in both the classroom and lab exercises. Prerequisite: AUT 141

AUT 503 - Automotive Brake Systems 3.00
This is a combined lecture and lab course that provides training in the operation and service of today’s brake systems. It emphasizes repair and service of drum and disk brake systems, and electronic antilock systems. Prerequisite: AUT 115

AUT 606 - Basic Automotive Electricity/Electronics 3.00
This course covers theory, diagnosis, and service practices related to electronic systems found on today’s automobiles. The basics of electricity, meter use, and circuit analysis will be covered. Special emphasis is made in the areas of schematics use, electrical system diagnosis, and circuit theory. Semiconductor use and computer operation will also be covered.

AUT 615 - Automotive Electricity/Electronics 4.00
This course covers theory, diagnosis and service practices related to electronic systems found on today’s automobiles. The basics of electricity, meter use and circuit analysis will be extensively covered. Special emphasis is made in the areas of schematics use, electrical system diagnosis, and circuit theory. Semiconductor use and computer operation will also be covered. Prerequisite: AUT 115

AUT 633 - Automotive Electrical Systems 4.00
This course introduces students to electrical theory, diagnosis, and service practices related to the electrical systems found on today’s automobiles. There is an emphasis on battery starting and charging systems, lighting systems, and hybrid vehicle electrical systems. Practical applications of schematics and electrical system diagnosis using circuit theory are discussed. Prerequisite: AUT 615

AUT 671 - Automotive Body Computer Systems 3.00
This course introduces students to the functions of automotive body computer systems, including theft deterrent/security, electronic instrument displays, air bags, keyless entry and navigation/communication. Diagnosis and repair of these key electrical systems are emphasized along with safety considerations. Prerequisite: AUT 633

AUT 703 - Automotive Heating and Air Conditioning 3.00
This is a combined lecture and lab course that covers the theory, operation, and service of automotive heating and air conditioning systems. It presents component repair, charging, and leak service and emphasizes the diagnosis of electronic climate control systems and safe recovery of refrigerant compounds. Prerequisite: AUT 633

AUT 807 - Automotive Engine Performance 5.00
This course introduces students to the operation, diagnosis, and repair of tune-up and drivability related systems. Students explore the operation of fuel delivery systems, ignition and timing control, emissions systems, and comprehensive engine testing. Emphasis is placed on advanced tune-up techniques and diagnostics. Prerequisite: AUT 633, AUT 671

AUT 838 - Automotive Advanced Fuel and Ignition Systems 5.00
This course allows students to discover various vehicle computer control systems and their related components. Students concentrate individually on each domestic manufacturer’s system including system operation and factory diagnostic methods. Emphasis is placed on computerized electronic fuel injection systems and computer-controlled ignition systems. Prerequisite: AUT 633, Corequisite: AUT 807

AUT 917 - Experimental Course 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. The purpose of this course is to guide in the formal development of new curricula. This course may not duplicate any course already in the catalog.

AUT 947 - Practicum 4.00
This course provides on the job experience and practical application of the competencies studied in the Auto Technology course work. It involves a coordinated effort between the student, Western Iowa Tech Community College faculty members, and the work supervisor in the business for these experimental activities. Students are required to complete a minimum of 256 hours at an automotive business. Permission of the instructor is required. Completion of a minimum of 29 hours of program requirement

AUT 949 - Special Topics 1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

BCA – BUSINESS COMPUTER APPS

BCA 115 - Internet Basics 1.00
This course provides instruction in browsing the World Wide Web, doing research on the Internet using search engines and search directories, setting up e-mail accounts, using an e-mail client, subscribing to newsgroups, identification of file types used on the Internet and downloading files from the Internet. It also provides an overview of the development of the Internet.
BCA 129 - Basic Word Processing  2.00
This course addresses basic and intermediate levels of word processing using Microsoft Word. Skills introduced include using and manipulating Windows, entering and editing text, formatting paragraphs and text, using the spelling checker and thesaurus, selecting printers and printing documents, and applying document formatting options.

BCA 130 - Advanced Word Processing  2.00
This course covers the advanced features of Microsoft Word. Skills introduced include using mail merge features; sorting text and data records; creating macros; document notations; using basic desktop publishing features; and creating online forms. Prerequisite: BCA 129, ADM 123

BCA 147 - Basic Spreadsheets  2.00
This course allows students to utilize their Microsoft Office knowledge to key a minimum of 20 wpm in order to be successful in this course.

BCA 165 - Basic Databases  2.00
This course teaches the fundamentals of database design and database creation. Students learn to create databases, query databases, maintain databases using design and update features, create custom reports, forms and combo boxes and create and use a data access page that allows users to utilize an Access database using the Internet.

BCA 175 - Basic Presentation Software  2.00
This course covers the development of presentation visuals using presentation software on a computer. Included in the course are how to plan and organize presentations and develop materials such as slides, black and white handouts and overheads. Students learn to integrate materials from several software sources, purchased graphics and art, and scanned materials. Preparing presentations for the Web is also covered.

BCA 206 - Applied Computer Concepts  3.00
This is an introductory course in basic electronic information processing. The emphasis is on computer literacy designed to give students a general understanding of computer software and hardware. Students gain hands-on experience with an operating system and software applications. Students are exposed to basic computer terminology, file management, email usage, digital devices, Internet, social networking, and security and privacy issues. This course may not transfer to other institutions. It is advisable to be able to key a minimum of 20 wpm in order to be successful in this course.

BCA 221 - Integrated Computer Business Applications  3.00
This course allows students to utilize their Microsoft Office knowledge and skills. Students receive instruction on specific Office application integration with emphasis on individual and workgroup-oriented projects. Prerequisite: CSC 110, BCA 129, BCA 147, BCA 175, BCA 165

BCA 917 - Experimental Course  1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

BCA 949 - Special Topics  1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

BIO – BIOLOGY

BIO 105 - Introductory Biology  4.00
This is a combined lecture and lab course that is a biological concepts survey for non-science majors. Topics covered include biochemistry, molecular and cellular biology, genetics, evolution, plant and animal classification, structure and function and ecology.

BIO 116 - General Biology 1B  4.00
This is a combined lecture and lab course that provides a foundation of the science of living things including biochemistry, cytology, genetics and evolution.

BIO 117 - General Biology II B  4.00
This is a combined lecture and lab course that is the continuation of General Biology 1B. Topics covered include classification, interrelationships between tissues, organs, and systems, immunity, sexual reproduction, embryology, animal behavior, and ecological relationships. Prerequisite: BIO 116

BIO 125 - Plant Biology  4.00
This course is a semester long survey of Plant Biology. The course will include topics on plant cells, tissues, roots, stems, leaves, flowers, fruits, seeds, metabolism, growth, development, genetics, reproduction, evolution, ecology, and will include a survey of bryophytes, seedless vascular plants, gymnosperms and angiosperms and their impact on civilization.

BIO 151 - Nutrition  3.00
This course presents the relationship between proper nutrition and good health. Topics covered include digestion, absorption, and metabolism of carbohydrates, lipids and proteins. Also included are vitamins, minerals, physical activity, maintenance of a healthy body weight, nutritional needs throughout the entire life cycle, and evaluation of nutritional claims. Meet ONE of the following: 1) ACT Composite of 22 or higher 2) 2 semesters of High School Chemistry with a B- or better OR 1 semester of High School Chemistry with a B- or better and 1 semester of High School Biology with a B- or better 3) Complete

BIO 163 - Essentials of Anatomy and Physiology  4.00
This is a terminal one-semester lecture and lab course covering the structure and function of the human organ systems and their organs. It also includes an introduction to medical terminology, homeostasis, basic cell and tissue structure and function. Students are required to identify specific organs including the major bones, the major muscles and the major blood vessels.

BIO 169 - Human Anatomy and Physiology I  4.00
This is a combined lecture and lab course that explores the relationship between structure, function and homeostasis in the human body. This course covers the skeletal, muscular, integumentary, and nervous systems, as well as cytology and histology. Prerequisite: Meet ONE of the following: 1) ACT Composite of 22 or higher 2) 2 semesters of High School Chemistry with a B- or better OR 1 semester of High School Chemistry with a B- or better and 1 semester of High School Biology with a B- or better 3) Completion with a C- or better in a transfer level Biology (BIO-105 or higher) OR Chemistry (CHM-122 or higher) 4) Instructor Permission to enroll in the course. Meet ONE of the following: 1) ACT Composite of 22 or higher 2) 2 semesters of High School Chemistry with a B- or better OR 1 semester of High School Chemistry with a B- or better and 1 semester of High School Biology with a B- or better 3) Completion with a C- or better in a transfer level Biology (BIO-105 or higher) OR Chemistry (CHM-122 or higher) 4) Instructor Permission to enroll in the course.

BIO 117 - General Biology III B  4.00
This is a combined lecture and lab course that is the continuation of General Biology II B. Topics covered include classification, interrelationships between tissues, organs, and systems, immunity, sexual reproduction, embryology, animal behavior, and ecological relationships. Prerequisite: BIO 116

BIO 151 - Nutrition  3.00
This course presents the relationship between proper nutrition and good health. Topics covered include digestion, absorption, and metabolism of carbohydrates, lipids and proteins. Also included are vitamins, minerals, physical activity, maintenance of a healthy body weight, nutritional needs throughout the entire life cycle, and evaluation of nutritional claims. Meet ONE of the following: 1) ACT Composite of 22 or higher 2) 2 semesters of High School Chemistry with a B- or better OR 1 semester of High School Chemistry with a B- or better 3) Complete

BIO 163 - Essentials of Anatomy and Physiology  4.00
This is a terminal one-semester lecture and lab course covering the structure and function of the human organ systems and their organs. It also includes an introduction to medical terminology, homeostasis, basic cell and tissue structure and function. Students are required to identify specific organs including the major bones, the major muscles and the major blood vessels.

BIO 169 - Human Anatomy and Physiology I  4.00
This is a combined lecture and lab course that explores the relationship between structure, function and homeostasis in the human body. This course covers the skeletal, muscular, integumentary, and nervous systems, as well as cytology and histology. Prerequisite: Meet ONE of the following: 1) ACT Composite of 22 or higher 2) 2 semesters of High School Chemistry with a B- or better OR 1 semester of High School Chemistry with a B- or better and 1 semester of High School Biology with a B- or better 3) Completion with a C- or better in a transfer level Biology (BIO-105 or higher) OR Chemistry (CHM-122 or higher) 4) Instructor Permission to enroll in the course. Meet ONE of the following: 1) ACT Composite of 22 or higher 2) 2 semesters of High School Chemistry with a B- or better OR 1 semester of High School Chemistry with a B- or better and 1 semester of High School Biology with a B- or better 3) Completion with a C- or better in a transfer level Biology (BIO-105 or higher) OR Chemistry (CHM-122 or higher) 4) Instructor Permission to enroll in the course.
BIO 173 - Human Anatomy and Physiology II  4.00
This is a combined lecture and lab course that is a continuation of Anatomy and Physiology I. Topics studied include the structure and function of the cardiovascular, lymphatic, endocrine, respiratory, digestive, urinary, and reproductive systems. Prerequisite: BIO 168

BIO 174 - Human Anatomy and Physiology IIA w/lab  4.00
This is a combined lecture and lab course that is a continuation of Anatomy and Physiology IA. Topics studied include the structure and function of the cardiovascular, lymphatic, endocrine, respiratory, digestive, urinary, and reproductive systems. Prerequisite: BIO 169

BIO 186 - Microbiology  4.00
This course combines lecture and lab activities for the study of microorganisms with emphasis on bacteria and viruses. Topics covered include morphology, physiology, genetics, culturing techniques, identification, control, disease and disease resistance of microbes. Prerequisite: BIO 116, BIO 169

BIO 917 - Experimental Course  1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

BIO 049 - Special Topics  1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

BIR – BAND INSTRUMENT REPAIR

BIR 101 - The BIR Industry  3.00
This lecture course presents an overview of the band instrument repair industry. Types of shop environments, manufacturers of instruments, and suppliers of tools and materials will be emphasized. Corequisite: BIR 140, BIR 150

BIR 105 - Repair Shop Safety  1.00
This lecture course covers all aspects of repair shop safety. Specific procedures for the WITCC Band Instrument Repair program are emphasized, along with safety practices for equipment used in the industry. Corequisite: BIR 140, BIR 150

BIR 110 - Instrument Case Repair  1.00
This lecture course covers repairs to instrument cases. Replacement of latches, handles, hinges, and interior components are emphasized. Corequisite: BIR 141, BIR 151

BIR 126 - Woodwind Machine Operations  3.00
This combined lecture and lab course covers lathe operations for woodwind instruments. Students learn tenon replacement, tone hole replacement, socket grafting and tenon capping. Prerequisite: BIR 141, BIR 240

BIR 135 - Small Parts Machining  3.00
This combined lecture and lab course is an introduction to machine lathe operation, focusing on the fabrication of small component parts and tools for instrument repair. Corequisite: BIR 151, BIR 141

BIR 140 - Woodwind Repair I  4.00
This combined lecture and lab course covers the nomenclature, mechanics, diagnostic procedures and repair processes for clarinets and flutes. Fundamental skills of padding, key corking, regulation and adjustment of mechanisms, and spring installation are emphasized. Corequisite: BIR 150

BIR 141 - Woodwind Repair II  4.00
This combined lecture and lab course covers the nomenclature, mechanics, diagnostic procedures and repair processes for clarinets and flutes. Fundamental skills of padding, key corking, regulation and adjustment of mechanisms, and spring installation are emphasized. Prerequisite: BIR 140, BIR 150, Corequisite: BIR 151

BIR 150 - Brasswind Repair I  4.00
This combined lecture and lab course covers the nomenclature, mechanics, diagnostic procedures and repair processes for cornets and trumpets. Fundamental skills including cleaning techniques, soldering, piston valve repair and basic dent repair techniques are emphasized. Corequisite: BIR 140

BIR 151 - Brasswind Repair II  4.00
This combined lecture and lab course covers the nomenclature, mechanics, diagnostic procedures and repair processes for trombones. Fundamental skills including cleaning techniques, handslide alignment, soldering, and basic dent repair techniques are emphasized. Prerequisite: BIR 140, BIR 150, Corequisite: BIR 141

BIR 210 - Percussion Instrument Repair  1.00
This lecture course covers repairs to percussion instruments. Construction materials, mechanical function, and replacement of component parts are emphasized. Corequisite: BIR 240, BIR 250

BIR 215 - Shop Management Practices  3.00
This capstone course prepares students for employment in the field of band instrument repair. Topics include customer recruiting and retention, customer relations, repair pricing and estimating, time management, inventories and suppliers, employment strategies, retail music business practices, and shop set-up and design.

BIR 225 - Orchestral String Instrument Repair  2.00
This course covers fundamental playing techniques, characteristics, physical properties, manufacturing methods and basic repairs on orchestral string instruments. The course covers techniques for replacing strings, bridges, sound posts and tuning pegs, as well as repairing minor structural damage. Corequisite: BIR 241, BIR 151

BIR 240 - Woodwind Repair III  4.00
This combined lecture and lab course covers the nomenclature, mechanics, diagnostic procedures and repair processes for piccolos, harmony clarinets and oboes. Fundamental skills of padding, key corking, regulation and adjustment of mechanisms, and spring installation are emphasized. Prerequisite: BIR 141, BIR 151, Corequisite: BIR 250

BIR 241 - Woodwind Repair IV  4.00
This combined lecture and lab course covers the nomenclature, mechanics, diagnostic procedures and repair processes for bassoons, along with a comprehensive review of woodwind instrument repair. Fundamental skills of padding, key corking, regulation and adjustment of mechanisms and diagnostic procedures are emphasized. Prerequisite: BIR 240, BIR 250, Corequisite: BIR 251

BIR 250 - Brasswind Repair III  4.00
This combined lecture and lab course covers the nomenclature, mechanics, diagnostic procedures and repair processes for horns and rotary valves. Fundamental skills including cleaning techniques, rotary valve alignment, leadpipe replacement, and dent repair techniques are emphasized. Prerequisite: BIR 141, BIR 151, Corequisite: BIR 240

BIR 251 - Brasswind Repair IV  4.00
This combined lecture and lab course covers the nomenclature, mechanics, diagnostic procedures and repair processes for euphoniums, tubas, and sousaphones, as well as a comprehensive review of brass instrument repair. Fundamental skills including cleaning techniques, valve alignment, soldering and dent repair techniques are emphasized. Prerequisite: BIR 240, BIR 250, Corequisite: BIR 241
**BIR 917 - Experimental Course** 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

**BIR 949 - Special Topics** 1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

**BMA – BUILDING MAINTENANCE**

**BMA 175 - Basic Plumbing** 2.00
This course is an introduction to a career in plumbing across a variety of residential and commercial settings. Students study safety procedures and tools as well as perform operations with both residential and commercial plumbing systems.

**BMA 177 - Industrial Plumbing and Pipefitting** 3.00
This course in fundamental plumbing and pipefitting covers topics including the properties of torque, the use of torque and the application of torque; the development and use of piping schematics; elementary pipe layout and joint construction with various materials; the purpose, use, construction and operation of valves and process control equipment used in manufacturing. Prerequisite: BMA 175, CON 112, PLU 170.

**BPT – BIOPROCESS TECHNOLOGY**

**BPT 114 - Instrumentation I** 2.00
This course is designed to provide the student with an introduction to basic process and continuous process control. This course teaches two of the most common types of process control systems, flow and liquid level, and the basic concepts on which other systems are based. Students will learn to calibrate, adjust, install, operate, and connect process control systems in industrial applications thus broadening their employment opportunities. Topics include, but are not limited to, feedback, modes, characteristics, variables, instrumentation and connections.

**BPT 115 - Instrumentation II** 2.00
This course is a continuation of Instrumentation I and covers one of the most common types of process control systems, temperature control. Topics include process measurement, calibration and test equipment. Prerequisite: BPT 114.

**BPT 917 – Experimental Course** 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

**BPT 949 - Special Topics** 1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

**BUS – BUSINESS**

**BUS 102 - Introduction to Business** 3.00
This course provides a broad overview of business including internal and external functions. Topics include economics, marketing, entrepreneurship, and management as well as related domestic and international business issues.
BUS 949 - Special Topics 1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

CAD – COMPUTER AIDED DRAFTING

CAD 267 - Two-Dimensional (2-D) I 3.00
This course introduces students to standard industry practices for technical and industrial illustration. Emphasis is placed on understanding how edges and surfaces are represented using orthographic projection. Students will use computers to create technical drawings of mechanical components. Prerequisite: DRF 113, DRF 121

CAD 269 - CAD Two-Dimensional (2-D) II 3.00
This course introduces students to advanced standard industry practices for technical and industrial illustration. Emphasis is placed on greater understanding of how edges and surfaces are represented using orthographic projection. Students use computers and the most up-to-date CAD software to create advanced 2D technical drawings. Prerequisite: CAD 267.

CAD 277 - 3-D Dimensional (3-D) Modeling I 3.00
This course teaches parametric solid model CAD basics. Three-dimensional parametric concepts with design intent and solid CAD models will be built and edited. This course builds on previous basic drafting skills and focuses on using parametric solid modeling design software to develop technical drawings. Topics include patterns of features, editing, adding dimensions and creating simple assemblies. Prerequisite: CAD 269.

CAD 279 - CAD 3-Dimensional (3-D) Modeling II 3.00
This course is a continuation of CAD 3-Dimensional Modeling I. Advance parametric solid model CAD features are taught. Parametric concepts with design intent are emphasized and solid CAD models are built and edited. This course builds on previous basic drafting skills and focus on using parametric solid modeling design software to develop complete working drawings with assemblies and bill of materials. Prerequisite: CAD 277.

CAD 285 - Computer Aided Drafting for Industry 4.00
This course builds on previous drafting studies and focuses on common industry processes of manufacturing. The process of welding and the creation of weldments is studied along with the principles and creation of sheet metal developments. The intersection of lines, planes and solids is also covered. Prerequisite: CAD 279.

CAD 917 - Experimental Course 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

CAD 949 - Special Topics 1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

CHM – CHEMISTRY

CHM 122 - Introduction to General Chemistry 4.00
This is a combined lecture and lab course that covers the basic concepts of inorganic chemistry: atomic structure, compounds and bonds, chemical equations and stoichiometry, states of matter, solutions, acids and bases, redox and nuclear chemistry. MAT 102 Intermediate Algebra MAT-102 or demonstrated preparedness for MAT-121 College Algebra.

CHM 132 - Introduction to Organic and Biochemistry 4.00
This is a combined lecture and lab course that covers the basic elements of organic chemistry and biochemistry: alkanes and their derivatives, carbohydrates, lipids, proteins, enzymes, the chemistry of cell metabolism and the chemistry of heredity. Prerequisite: CHM 122, Prerequisite: CHM 166.

CHM 166 - General Chemistry I 5.00
This is a combined lecture and lab course that covers the principles of atomic and molecular structure, chemical bonding, periodicity, nomenclature, equations and stoichiometry, physical states of matter and energy transfer processes and nuclear chemistry. It is strongly recommended... Pre-requisites: High School Algebra II or MAT 121 College Algebra; and High School Chemistry or CHM 122 Introduction to General Chemistry.

CHM 176 - General Chemistry II 5.00
This combined lecture and lab course is a continuation of Chemistry I. Topics includes solutions and colligative properties, acids and bases, equilibrium, thermodynamics, kinetics, redox reactions and electrochemistry, nuclear chemistry and systematic descriptive chemistry of metals and nonmetals. Prerequisite: CHM 166, MAT 121.

CHM 261 - Organic Chemistry I 4.00
This course covers the theory and practice of organic chemistry with an emphasis on the chemistry of functional groups. Topics include nomenclature, stereoisomerism, chemical bonding, reaction mechanisms, the characterization of hydrocarbons, alkyl halides and alcohols. Laboratory work stresses development of appropriate organic chemistry separation, isolation and synthetic techniques. Prerequisite: CHM 176.

CHM 271 - Organic Chemistry II 4.00
This is a combined lecture and lab course that is a continuation of Organic Chemistry I. Topics covered include ethers, aldehydes, ketones, carboxylic acids and their derivatives, amines and biologically important fats, proteins, and carbohydrates. The course emphasizes qualitative organic analyses and spectroscopic methods. Prerequisite: CHM 261.

CHM 917 - Experimental Course 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

CHM 949 - Special Topics 1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

CIN – CINEMATOGRAPHY

CIN 104 - Media Production and Equipment 3.00
This course introduces the student to the basics of media production and the equipment used to perform media production for television, multimedia and the web. Basic operation of ENG, EFP, DSLR as well as non-traditional visual gathering cameras is covered. The basics of shot composition and exposure are introduced. Various types of camera support are explained and demonstrated. File management is an integral part of this course. Corequisite: ELE 101.

CIN 106 - Introduction to Editing Software 2.00
This introductory course will explain the background of the editing process. Various editing software packages will be demonstrated and through hands-on projects the students will develop editing skills and an understanding of industry standard best practices in relation to editing. Corequisite: CIN 117.
CIN 116 - Management and Operations  3.00
This course educates students in the basics of the day to day management and operations of broadcast and cable television stations and media production companies. Freelance and “one man band" style operations are covered as well.

CIN 117 - Introduction to Motion Graphics  2.00
This course introduces the student to design and execution of motion graphics using industry standard software. Also covered are file formats and conversion, production workflow, and broadcast standards for graphics. Corequisite: CIN 106

CIN 118 - Technical Production in Media  3.00
This course covers the different types of lighting for media production. Types of instruments, color temperature, lighting modification and styles will be discussed. Lighting for location, stage and studio are part of this course. Automated lighting methods such as DMX are also discussed. Prerequisite: CIN 104

CIN 125 - Integrated Motion Graphics and Video  2.00
This course integrates motion graphics with both live and pre-recorded video elements for broadcast, multimedia and web productions. Maintaining quality and high standards are stressed throughout. Prerequisite: CIN 117

CIN 126 - Video Field Production  3.00
This course concentrates on the skills to acquire video in the field. Proper shot composition; lighting and audio acquisition are stressed. Students are also instructed in special considerations while working in the field. Prerequisite: CIN 104, CIN 106

CIN 127 - Live Video Production  3.00
This course investigates studio production in varied program types such as news, events and dramas. Job skills and responsibilities of the director, technical director, floor director, camera operators and audio engineers are demonstrated. Other skills such as timing, intercom and teleprompter operation are discussed. Prerequisite: CIN 126, CIN 118

CIN 135 - Advanced Motion Graphics and Video  3.00
This course provides instruction in advanced techniques in the integration and creation of high quality motion graphics using industry standard tools and software. Prerequisite: CIN 125

CIN 145 - Marketing and Advertising for Media  3.00
This course covers the advertising aspects of media production. The operations of advertising agencies, radio, TV & Cable sales operations are central to this course. The importance of ratings is also covered, as well as special media considerations of the US Election cycles.

CIN 149 - Internship  1.00-4.00
This course provides on-the-job experience on campus in an industry setting giving students experience and practical application of the competencies learned in the Independent Film program. The internship is coordinated by the college instructor and supervised by an industry professional at the work site. Students must have successfully completed the required program courses for the first and second semesters. Instructor permission required.

CIN 161 - Video Practicum I  1.00
This course will allow students to apply learned skills by producing video projects under faculty supervision. Prerequisite: CIN 104

CIN 162 - Video Practicum II  2.00
This course will allow students to apply learned skills by producing more challenging video projects with less faculty supervision while maintaining high quality outcomes. Prerequisite: CIN 161

CIN 163 - Video Practicum III  2.00
This course will enable students to apply learned skills by producing advanced projects for clients on and off campus with minimal supervision of faculty as a capstone to their program experience. Students will also assemble a portfolio of work performed in the program as both an aide to pursuing work in their chosen field and to show their progress throughout the program. Prerequisite: CIN 162

CIN 917 - Experimental Course  1.00-4.00
This pilot course is under the supervision of a faculty member and is approved by the division chair. The purpose of this course is to guide in the formal development of new curricula. This course may not duplicate any course already in the catalog.

CIN 932 - Internship  1.00-4.00
This course provides on-the-job experience on campus or in the industry, giving the student experience and practical application of the competencies learned in the degree program. The internship is coordinated by the college instructor and supervised by an industry professional at the work site. Prerequisite: Permission of instructor, 2.0 cumulative GPA and a C (2.0) or better in core courses as defined by the program advisor. Students meet once a week to discuss their experiences and ongoing progress with their fellow class members, and to measure progress with the instructor.

CIN 949 - Special Topics  1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

CIS – COMPUTER PROGRAMMING

CIS 123 - Swift and the Internet of Things  3.00
This course consists of three big sections that will get you up and running with the Internet of Things. The first part of the course starts you out learning the Swift Language that can be used to create iOS apps and also be used to run Server Side Code. In this section you will learn how to design, create, and debug programs created with the Swift language. The second portion of the course deals with small electronics that run off of an Arduino board. You will learn the basics of creating and debugging circuits. The final section links the first two sections together. You will create your own internet of things device that is composed of a Swift Server on a Raspberry Pi that is monitoring an electronic circuit you created. Finally, you will create your own app that will monitor this device remotely.

CIS 124 - 3D Modeling and Topology  3.00
This course introduces students to the fundamentals of 3D modeling and topology which are essential for learning more advanced concepts such as UV mapping, texturing, animation, and other digital graphic skills. Concepts covered include types and components of modeling, modeling basics, face normals, topology, importing and exporting objects, coplanar geometry, scale, and perspective. The course emphasizes application of planning, reference, good topology, and mesh cleanup. Corequisite: CIS 386, CIS 389

CIS 127 - Live Video Production  3.00
This course investigates studio production in varied program types such as news, events and dramas. Job skills and responsibilities of the director, technical director, floor director, camera operators and audio engineers are demonstrated. Other skills such as timing, intercom and teleprompter operation are discussed. Prerequisite: CIN 126, CIN 118

CIS 135 - Advanced Motion Graphics and Video  3.00
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CIS 145 - Marketing and Advertising for Media  3.00
This course covers the advertising aspects of media production. The operations of advertising agencies, radio, TV & Cable sales operations are central to this course. The importance of ratings is also covered, as well as special media considerations of the US Election cycles.

CIS 149 - Internship  1.00-4.00
This course provides on-the-job experience on campus in an industry setting giving students experience and practical application of the competencies learned in the Independent Film program. The internship is coordinated by the college instructor and supervised by an industry professional at the work site. Students must have successfully completed the required program courses for the first and second semesters. Instructor permission required.

CIS 161 - Video Practicum I  1.00
This course will allow students to apply learned skills by producing video projects under faculty supervision. Prerequisite: CIN 104

CIS 162 - Video Practicum II  2.00
This course will allow students to apply learned skills by producing more challenging video projects with less faculty supervision while maintaining high quality outcomes. Prerequisite: CIN 161

CIS 163 - Video Practicum III  2.00
This course will enable students to apply learned skills by producing advanced projects for clients on and off campus with minimal supervision of faculty as a capstone to their program experience. Students will also assemble a portfolio of work performed in the program as both an aide to pursuing work in their chosen field and to show their progress throughout the program. Prerequisite: CIN 162

CIS – COMPUTER PROGRAMMING

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This course will enable students to apply learned skills by producing advanced projects for clients on and off campus with minimal supervision of faculty as a capstone to their program experience. Students will also assemble a portfolio of work performed in the program as both an aide to pursuing work in their chosen field and to show their progress throughout the program. Prerequisite: CIN 162
CIS 175 - Java II  3.00
This course is the second of two comprehensive Java programming courses. Java II introduces students to advanced object-oriented programming concepts along with the Java syntax to implement them. Java graphical user interface (GUI) applications are introduced, providing the student a more thorough understanding of the concepts used in object-oriented programming. Topics emphasized are graphical user interfaces, wrapper classes, exception handling techniques, applets, recursion, polymorphism, inheritance and working with databases in Java. Prerequisite: CIS 171

CIS 193 - Application Development I  3.00
This course requires a background in Objective-C and Apple’s Foundation Framework. This is an introductory course to iOS software architecture and programming with a focus on application development. Topics will include the 4-layers of iOS Frameworks with strong emphasis on the Cocoa Touch layer. Coverage will also include extensive programmatic view and control building.

CIS 215 - Server Side Web Programming  3.00
This combined lecture and lab course will introduce students to a server-side scripting language to create form handlers and mailer applications, build basic document management systems and create server-based support pages for custom web applications. Students will also learn about methods for persisting client information and error handling.

CIS 221 - Scripting Basics  3.00
This course introduces basic applied concepts of scripting for 3D modeling software and game engines. Maya MEL, Python, and other scripting languages are covered. Basic scripting is useful for learning more advanced modeling, visual effects, game AI, and animation techniques.

CIS 293 - Application Development II  4.00
This course covers advanced topics in Application Development including mobile user interfaces, collections, UI-Kit, Model-View-Controller designs, Grand Central Dispatch, Objective-C Closures, and an intro to push notifications. Prerequisite: CIS 193

CIS 305 - Video Game Art Test Preparation  3.00
This course prepares students for taking a video game art test. Art tests are usually required for entry level industry positions. Art assets will be created based on provided references within a deadline and be critiqued. The process will be repeated so that students may build upon their experience and prepare themselves for an eventual real world art test. The art test process also helps students recognize weaknesses in their modeling and texturing skillsets and learn to improve their artistic skills.

CIS 333 - Data Base and SQL  4.00
This is a combined lecture and lab course that provides instruction and experience in programming with relational database access. It references and/or uses data base software.

CIS 345 - Data Base Design  2.00
This course introduces students to the concepts associated with relational database design. Students will use data modeling to produce an efficient and maintainable database design. Students will also become familiar with entity relationship diagrams and data normalization.

CIS 368 - Game Programming  4.00
This introductory entertainment design course covers the basics of games, audio and dynamic animation control in 2D. The topics include an introduction to game physics, game AI, Core Audio and head-to-head network gaming. Other topics include 2D, 2.5D and 3D animation with 3D audio, physics, more advanced AI and network/Bluetooth technologies to build entertainment and games applications.

CIS 369 - Video Game Portfolio Preparation  2.00
This course introduces the importance of developing a portfolio. A portfolio is vital for getting a job in the video game or CG field. The course covers proper reference, receiving and implementing critique, iteration, and the steps to follow and pitfalls to avoid when preparing a portfolio. The course lays the framework for an eventual production ready portfolio. Corequisite: CIS 124, CIS 221, CIS 386, CIS 389

CIS 383 - Digital Composition and Graphics Pipeline I  2.00
This course is an introduction to digital composition and the graphics procedures. This course focuses on manipulation of digital images, preparing textures, digital painting, software integration, composition and compositing, and pipeline procedures such as efficient work flow, image editing and compositing, and operating under time restrictions. Late in the semester we focus on advanced digital image manipulation such as layering and masking, applying textures, texture painting, lighting effects, advanced composition and compositing, and pipeline procedures including team development.

CIS 384 - Digital Composition and Graphics Pipeline II  2.00
This course is an introduction to advanced digital composition and graphics pipeline procedures used in the CG industry. This course is a continuation of CIS 383 Digital Composition & Graphics Pipeline I and focuses on advanced digital image manipulation such as layering and masking, applying textures, texture painting, lighting effects, advanced composition and compositing, and CG pipeline procedures including team development. Prerequisite: CIS 383

CIS 386 - Game Design  3.00
This course introduces game design theory, history of gaming, types of games, gaming platforms, and major game components. It serves as an introduction to each course in the program. Corequisite: CIS 124, CIS 389

CIS 389 - Level Design I  3.00
This course introduces the art of game and level design. A combination of theory and hands-on application is used to teach the skills needed to build levels for many different types of games. The layout, look, and feel of levels are the main focus of this course. Corequisite: CIS 124, CIS 386

CIS 391 - Animation for Games  2.00
This course introduces students to 3D computer animation, basic animation principles, and application of animation concepts by creating animation scenes. The focus of this course is utilizing key animation concepts to design, create, document, and debug a basic animation.

CIS 392 - Interface Design for Games  3.00
This course provides an overview of the user interfaces (UI). Students will explore what makes a good interface, what makes a bad interface, and techniques on how to create user interfaces, the look, and interactions. This course will explore how to develop robust, reliable applications as a collection of interfaces that interact with each other and their compatible implementations. Topics will include interface contracts, inheritance and its implications for interface design and user experience, differences in the considerations for local versus remote interfaces, and industry standard interface design patterns. We will discuss other topics such as: cross platform interface, platform differences, transparency, and standard UI practices. While the concepts and techniques in this course are largely platform and language independent, Objective-C iPhone applications will be used for implementation of the interfaces.

CIS 393 - Introduction to 3-D Gaming Art  3.00
This course introduces industry standard 3-D software development tools, including Maya, Substance Painter and ZBrush. 3-D software plays a significant role in game development, movie animation and graphics and related fields. Understanding how such software is used and how to use it is vital for a career involving computer graphics. Prerequisite: ART 371

CIS 395 - Game Engines  3.00
This course provides information regarding the many types of game engines, their uses, and the difference between commercial and open source game engines. Game development is also addressed. Prerequisite: CIS 387
CIS 396 - Game Development Team 3.00
This course illustrates the various design teams and their roles during the game development process. Students will experience key industry roles, including game designer, artist, programmer, tester and project manager. This course is offered concurrently with CIS 398 Game Final Submission in order for students to collaborate with their teams as they design and build a prototype video game.

CIS 397 - Physics for Game Design 4.00
This course explores the relevance and application of physics in video games. Students examine the basic concepts of physics and how it relates to video games and physics engines. Prerequisite: CIS 387, CIS 395

CIS 398 - Gaming Final Submission 2.00
This course is the culmination of Video Game Design program coursework. Students are assigned to teams to design and build a small game based on an instructor-approved topic. Each team will also present the design document and the final submission. This course is offered concurrently with CIS 396 Game Development Team in order for students to collaborate with their teams on the project. Each student is responsible for being the lead designer for their final game submission project. Corequisite: CIS 396

CIS 399 - Video Game Portfolio 2.00
This course demonstrates how to create, prepare, and showcase portfolio quality assets in order to gain employment in the video game and related industries. Students will create portfolio quality assets for presentation to prospective employers.

CIS 404 - Environmental Modeling 3.00
This course applies the theory of level lay out from CIS 389 Level Design and adds detailing and refinement of level design such as refining blocked out models, set dressing, modular design, interactive objects, and other techniques for detailed model creation. Students will develop a polished, refined, and more detailed version of their level block out. Prerequisite: CIS 389

CIS 405 - Video Game Portfolio Polish 1.00
This course continues the process of developing a quality portfolio vital for getting a job in the industry. Students will apply what they learned in CIS 369 Video Game Portfolio Preparation and apply concepts learned from other courses in the program in order to develop more advanced portfolio assets. The process of developing a quality portfolio requires a continual process of critique, iteration, and polish. Prerequisite: CIS 369

CIS 414 - Environmental Art and World Building 3.00
This course continues the level development process begun in CIS 404 Environment Modeling and adds detailing and refinement through advanced texturing, lighting, and detailing of a game level. The course completes learning the video game environment pipeline creation process from start to finish, beginning with an initial idea, block in phase, asset creation, lighting, and presentation. The goal of the class will be to finalize several high-quality level assets that will come together to create a cohesive level. Prerequisite: CIS 404

CIS 415 - Video Game Portfolio Refinement 2.00
This course prepares students to continue iterating portfolio assets based on critique. Students will use feedback to refine their portfolio so that it is near production ready quality. Prerequisite: CIS 405

CIS 606 - Visual BASIC.NET I 3.00
This course is a combined lecture and lab course that introduces Windows programming using Microsoft’s .NET framework. Students will write introductory level programs involving variables, assignment, input and output using graphical user interface (GUI), calculations, repetition and selection between alternatives using the .NET environment.

CIS 607 - Visual BASIC.NET II 3.00
This course is a continuation of Visual Basic.NET I. In this course, students learn more about advanced database programming, reporting, web programming, multilayer applications, user controls and developing applications for mobile devices using Visual Basic.
This course provides a culminating experience for students with an overview, in-depth study and capstone project of a specified culture. The unique structure of this course offers students the opportunity not only to study the customs, language and arts of the culture in a classroom setting, but students will experience it first-hand through a travel component. Students will incur significant additional costs for travel. These costs will be detailed by the instructor no later than the first day of class. This course may be repeated for credit.

This course utilizes an interdisciplinary and intersectional approach to studying gender, race, class, sexuality and other issues of diversity. The curriculum highlights the duality of oppression and privilege and the ways in which race, gender, class and sexuality shape daily life. Special focus is on learning how to demonstrate course concepts as social action. Social justice is practiced as students become educated in these concepts of diversity and engage in diversity conscious social action.

This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

This course is a study of the principles and processes of written and oral communication as applied to occupational and personal use through practical reading, writing and speaking assignments. It emphasizes technical report writing, including preparation, organization, audience and the effective use of format, supplements and visuals.

This course covers written and oral communication as it applies to various occupational areas. It emphasizes technical report writing, including preparation, organization, audience and the effective use of format, supplements and visuals.

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This course is a study of construction related drawings and the language of construction. Students are shown how to gather and use information from prints and drawings to estimate quantities of materials and perform construction work processes.
CRJ 100 - Introduction to Criminal Justice 3.00
This course studies the history of law enforcement and respective agencies and the basic theories of the criminal behavior as well as law enforcement terminology and technology. It emphasizes the duties and responsibilities of the law enforcement officer to the individual and society as a whole and explores and defines techniques, technical terms, and basic procedures.

CRJ 101 - Ethics in Criminal Justice 3.00
This course covers the ethical standards and codes of professional behavior for police officers and others placed in positions of public trust. The course includes use of force, gratuities, intra- and interagency conduct, integrity, ethical necessity of due process and on-duty and off-duty conduct.

CRJ 110 - Patrol Procedures 3.00
This course is an in-depth study of the police uniformed patrol division. Theories and concepts are explored and supplemented with real-world experiences of working officers. The course provides an understanding of the patrol function and appreciation of the total environment within which a modern patrol officer must function.

CRJ 113 - Field Strategies 3.00
This course covers the individual human behavior and the possible causes, potential and overt criminal behavior that may result, and the interaction of the offender and peace officer. Emphasis is placed on the interpersonal relationship between the citizen and the law enforcement officer.

CRJ 120 - Introduction to Corrections 3.00
This course presents the development of correctional theory, the correctional client, trial, sentencing, and institutions involved, and rehabilitation potential through probation and parole. Students acquire the ability to recognize the purpose and function of the correctional systems, personnel, and processes as they relate to the police and to the total criminal justice system.

CRJ 131 - Criminal Law and Procedure 3.00
This course defines criminal law, crimes, elements, and proof requirements. It utilizes the case book method and emphasizes Iowa criminal law statutes.
CRJ 217 - Selective Drug Enforcement  2.00
This course examines abuse of controlled substances and the legal sanctions against possession, manufacture, use and sale. It covers the preliminary identification of controlled substances and users as well as the short- and long-term effects of drug use. Discussion of enforcement techniques such as selective enforcement and clandestine operations is included.

CRJ 220 - Community-Based Corrections  3.00
This course is a discussion of the importance of community treatment programs for juveniles and adult offenders. The principles and philosophy of community treatment are explained as well as the nature of the community treatment agent's work. Major issues and trends in the field are examined.

CRJ 221 - Probation and Parole  3.00
This course is an introduction to probation and parole, its philosophy, procedures and institutions. Aftercare and post release problems are also studied. Prerequisite: CRJ 120

CRJ 223 - Correctional Administration  3.00
This course examines the role of the correctional administrator. The philosophies and principles of administration, supervision and retention are covered.

CRJ 224 - Correctional Institutions  3.00
This course is an introduction to correctional institutions, examining the organization, functions and operations of various facilities. Employment opportunities and duties are also discussed.

CRJ 231 - Traffic Law  3.00
This course is a study of the motor vehicle laws of the state of Iowa and traffic control procedures. Topics include enforcement of the laws involved with the apprehension, arrest, evaluation, and prosecution of intoxicated and impaired motor vehicle operators, and associated evidence and courtroom testimony.

CRJ 242 - Applied Criminalistics  3.00
This course is designed to give the student an overview of the science of crime investigation through lecture and practical exercises. Prerequisite: CRJ 140, CRJ 144, CRJ 262

CRJ 243 - Traffic Collision Investigation  2.00
This course is a study of traffic supervision, proper completion of reports, physical evidence acquisition, accident diagrams and analyses, and determination of proof of causation.

CRJ 253 - Basic Firearms  3.00
This course covers handgun and shotgun nomenclature, range safety, range etiquette, marksmanship, weapon care, and cleaning procedures for different types of firearms. Basic combat training and familiarization with revolvers and the 12 gauge shotgun is also covered. This course is limited to the student who has successfully completed the prerequisites. The student shall submit and pay for a criminal history check to be run by the college through the Iowa Department of Criminal Investigation. A felony or history of domestic abuse is reason for rejection. Prerequisite: CRJ 150

CRJ 255 - Advanced Firearms  3.00
This course covers semi-automatic pistol proficiency training, combat marksmanship and completion of a tactical combat semi-automatic pistol course leading to certification. Prerequisite: CRJ 253

CRJ 257 - Physical Fitness & Conditioning  1.00
This rigorous course builds on prior fitness knowledge as well as physical conditioning. A fitness exam is conducted and an advanced personal exercise and nutrition program is developed to meet each student’s needs. Students’ fitness levels are monitored throughout the course.

CRJ 260 - Medicolegal Death Investigation  3.00
This course deals with the death investigative process from the position of the investigating police officer. Emphasis is placed on the determination of the manner, cause, and mechanism of death by relying on the interpretation of wound and injury artifacts. The information gathered by the officer during this investigative process is then utilized as evidence in a legal forum. This course is designed for the student who has completed the first year of Police Science or has some background in crime scene investigations.

CRJ 262 - Fingerprint Technology  2.00
This course is an in-depth study of the most widely utilized and accepted investigator’s tools in fingerprint technology. Theories and concepts are explored, as are actual hands-on assignments. The course provides the student with the information required to be able to develop fingerprints by chemical and mechanical methods. The course also involves the recognition, identification and classification of the various fingerprint patterns. This course is designed for the first year, second semester, police science student. Prerequisite: CRJ 140

CRJ 280 - Police Science Practicum I  2.00
This course provides the student with instruction and practical applications in the areas of securing arrested persons, handcuffing procedures, and use of force in regard to arrest. The student is required to have knowledge of the police shotgun and demonstrate competency in its operation. During the course the student prepares letters of introduction and inquiry and becomes involved in a mock oral board interview. Prerequisite: CRJ 150

CRJ 281 - Police Science Practicum II  2.00
This course provides the student with the means to gain experience by using and demonstrating learned proficiencies in various simulated situations. The law enforcement profession is essentially a problem-solving profession requiring that individual officers access learned information and to correctly apply techniques in varied situations. This course requires the student to apply learned techniques and knowledge during the class to solve problems in areas such as performing building searches, domestic disputes, car stops, deadly force threat evaluation and response. This course also requires each student show proficiency in conducting misdemeanor and felony traffic stops. Prerequisite: CRJ 280, CRJ 253

CRJ 310 - ILEA Basic Shortcourse  15.00
This course is designed to meet the certification requirements for Iowa Law Enforcement Officers. The curriculum is established by Iowa Code 80B according to the Iowa Law Enforcement Academy Administrative Rules as outlined in 501-3.6 (80B). If the rules change, then the course will change to reflect the most current requirements. Students must be graduates of a two- or four-year program in Police Science or Criminal Justice and must already be hired by a law enforcement agency or sponsored by an agency. Students must be graduates of a two- or four-year program in Police Science or Criminal Justice and must already be hired by a law enforcement agency or sponsored by an agency.

CRJ 917 - Experimental Course  1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

CRJ 949 - Special Topics  1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

CRR – COLLISION REPAIR AND REFINISH

CRR 102 - Sheet Metal Welding  3.00
This course will provide a working knowledge of oxyacetylene usage, MIG welding, along with TIG welding procedures. Specific welding procedures producing necessary weld constructions used in the automotive trade will be emphasized. The student develops skills through practice when completing industry accepted automotive welds on 22 gauge mild steel.
CRR 202 - Plastic Repair  3.00
This course provides students with the knowledge necessary to identify and repair the various plastic and fiberglass panels used in modern vehicle construction.

CRR 210 - Electricity and Air Conditioning  3.00
This course explores the systems of electricity and air conditioning in automobiles as it relates to collision repair. Topics to be covered are basic electrical circuitry, wiring schematics, test equipment, wiring loom repair, refrigerant recovery, mechanical connections, and overall evaluation of damage to each of these systems. Prerequisite: CRR 411

CRR 323 - Sheet Metal Fundamentals  3.00
This course provides the student with the basic theory of metal straightening, tool skill development, auto body nomenclature, and the materials commonly used to complete the repairs. Students practice roughing, shaping, sheet metal fabrication, metal finishing, and the use of body fillers on automotive body panels.

CRR 403 - Exterior Body Construction  3.00
This course provides instruction and practice in methods of adjusting and aligning bumpers, lamps, doors, fenders and exterior body panels. Emphasis is placed on the fit of fenders, doors, hoods, deck lids, grills, and the servicing of hinges and latches.

CRR 411 - Interior Body Construction  3.00
This course provides instruction and practice in the servicing of dash assemblies, headliners, seats and seat belts, interior trim, and door hardware. The removal and installation of automotive glass and trim will be practiced.

CRR 504 - Frame and Unibody Damage Analysis  4.00
This course studies frame and unibody construction, automotive design and frame damage analysis. The course covers the proper use of alignment equipment, frame gauges and frame repair procedures used to do repairs. The use of frame straightening equipment is demonstrated and put into practice. Training includes suspension parts that are commonly damaged in a collision. Suspension emphasis is on how a misaligned body structure can affect wheel alignment. Prerequisite: CRR 102

CRR 533 - Structural Repair  3.00
This course examines the removal, replacement and accepted sectioning procedures of inner structural panels using industry accepted repair procedures. Proper application of anti-corrosion materials to structural repaired areas of enclosed rails and boxed sections are presented. Prerequisite: CRR 102, CRR 323, CRR 403, Corequisite: CRR 504

CRR 551 - Integral Body Repair  3.00
This course is designed to identify and demonstrate removal and replacement procedures of outer integral body panels using accepted industry standards. Sectioning of automotive panels and corrosion protection of repaired areas are shown. Prerequisite: CRR 102, CRR 323, CRR 411

CRR 655 - Advanced Collision Repair  5.00
This course utilizes lecture and lab activities to provide industry production experience repairing collision damaged vehicles to pre-accident specifications. Auto collision industry standards and procedures are followed as guidelines for acceptable repairs. Prerequisite: CRR 533, CRR 551

CRR 742 - Estimating Theory  2.00
This course provides students with the knowledge necessary to write estimates on damaged vehicles. Topics include collision estimating guides and the proper format in writing estimates. It also introduces interpersonal and financial management techniques and reviews customer relations and communication with insurance and body shop personnel.

CRR 805 - Refinishing I  4.00
This course combines lecture and lab activities to provide the students with knowledge to analyze paint problems and their remedies. Automobiles are prepared for complete panel refinishing and overall vehicle refinishing. Refinishing is performed following paint manufacturers recommendations. Prerequisite: CRR 811

CRR 811 - Surface Preparation  4.00
This course combines lecture and lab activities to introduce the basic procedures of surface preparation for refinishing. Techniques demonstrated include cleaning, sanding, and use of power tools and paint equipment. Students learn to use abrasives, undercoats, solvents and basecoat/clearcoat topcoats, and techniques of color sanding and polishing.

CRR 834 - Refinishing II  4.00
This course combines lecture and lab activities to teach spot painting, blending, and color matching as well as the study and use of basecoat/clearcoat paint systems. Intermediate skills will be developed in the use of finesse sanding and polishing. Prerequisite: CRR 805

CRR 874 - Advanced Refinishing  4.00
This course combines lecture and lab activities to develop advanced automotive refinishing shop production skills by refinishing paint damaged automobiles to pre-damaged condition. Paint manufacturers recommendations and refinishing shop standards are used to repair the vehicle to customer satisfaction. Prerequisite: CRR 834

CRR 917 - Experimental Course  1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

CRR 949 - Special Topics  1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

CSC – COMPUTER SCIENCE

CSC 110 - Introduction to Computers  3.00
This course provides a fundamental understanding of computers and familiarizes students with the interaction of computer hardware and software. Emphasis is on the application of microcomputers and hands-on use of software applications, including operating systems, word processing, spreadsheets, databases, presentation software, and file management. Students should plan on some lab time outside of class for homework. Keyboarding/typing skills highly recommended.

CSC 142 - Computer Science  4.00
This is the first in a two-semester sequence of courses that introduces a student to the discipline of computing using a modern programming language. Through extensive practice in coding, debugging, testing, and documentation, students gain exposure to development of problem-solving strategies, algorithm design, and top-down design principles.

CSC 153 - Data Structures  4.00
This is the second in a two-semester sequence of introductory computing courses. This course introduces a student to advanced features of a modern programming language. Topics emphasized are data structures, recursion, data abstraction, and sort/search algorithm usage and analysis. Prerequisite: CSC 142

CSC 175 - Computer Organization and Assembly Language Programming  4.00
This course introduces hardware organization, various number systems including the binary number system, binary math, memory addressing, data conversions, data representation, assembly language versus machine language, use of condition tests, branches, loops and arrays, subroutines and parameter passing. Prerequisite: CSC 142
CSC 917 - Experimental Course 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

DEA – DENTAL ASSISTANT

DEA 101 - Professional Orientation 1.00
This course provides an introduction to the dental health team, the profession, ethics and jurisprudence, and professional development. Recognition of patient needs and team building skills are emphasized. Instructor consent is required.

DEA 256 - Dental Anatomy 2.00
This course provides introduction to body function and structures; head and neck anatomy, oral embryology, histology and tooth morphology; and related oral pathology as it applies to Dental Assisting. Instructor Consent

DEA 270 - Dental Therapeutics 3.00
This course provides an introduction to pharmacology, nutrition, preventive dentistry concepts, oral diagnosis, and dental/medical emergencies. Background knowledge needed to meet patient needs and identification of related oral pathology is emphasized. Instructor consent required. Corequisite: DEA 256

DEA 274 - Dental Therapeutics 2.00
This course provides an introduction to pharmacology, nutrition, preventive dentistry concepts, oral diagnosis, and dental/medical emergencies. Background knowledge needed to meet patient needs and identification of related oral pathology is emphasized. Instructor consent is required. Corequisite: DEA 256

DEA 303 - Dental Radiography 4.00
This lecture and laboratory course provides an introduction to principles related to dental radiography. Students learn skill development in intra-and extra-oral radiographic imaging and a variety of processing techniques. Instructor consent is required. Prerequisite: DEA 508, Corequisite: DEA 613

DEA 405 - Dental Materials 4.00
This lecture and lab course provides basic principles related to physical and chemical composition, characteristics, and function of dental materials. Students learn skill development in manipulation of materials and individualized laboratory procedures utilized in the dental office. An emphasis on safety, infection control, and quality assessment is included. Instructor consent is required. Corequisite: DEA 256, DEA 508

DEA 406 - Dental Materials 5.00
This lecture and lab course provides basic principles related to physical and chemical composition, characteristics, and function of dental materials. Students learn skill development in manipulation of materials and individualized laboratory procedures utilized in the dental office. An emphasis on safety, infection control, and quality assessment is included. Instructor consent is required. Corequisite: DEA 256, Prerequisite: DEA 508

DEA 508 - Fundamentals of Dental Assisting 7.00
This lecture, lab and clinical course provides an introduction to the dental office, instrumentation, equipment, basic intraoral skills development, and operative dentistry procedures. Hazard management and infection control strategies are emphasized. Application of learned skills is provided through a general dentistry clinical experience. Instructor consent is required. Corequisite: DEA 256, DEA 270, DEA 405, DEA 101

DEA 613 - Dental Assisting Specialties 6.00
This lecture, lab, and clinical course provides concepts related to the dental specialties and advances intraoral skills development. Application of learned skills is provided through a variety of general and specialty clinical experiences. Instructor consent is required. Prerequisite: DEA 508, Corequisite: DEA 303, DEA 701

DEA 701 - Dental Office Procedures 1.00
This lecture course provides an introduction to dental office management, bookkeeping systems, third-party payment plans, appointment control, and communications. Interaction between business and clinical dentistry is emphasized. Instructor consent is required. Corequisite: DEA 101, DEA 256, DEA 270

DEA 710 - RDA Expanded Functions 3.00
This course provides theoretical concepts and skills to expand the dental assistant's or dental hygienist's scope of practice to include occlusal registration, gingival retraction, final impression, provisional restorations, application of cavity liners, desensitizing agents, bonding systems, placement and removal of dry socket medication, placement of periodontal dressing, testing pulp vitality, removal of adhesives, and preliminary charting of existing dental restorations and teeth. Instructor consent is required. To be eligible to register for this course, students must: 1. Be a graduate of an ADA-accredited dental assistant program; or 2. Be currently certified by the Dental Assisting National Board; or 3. Have at least one year of clinical practice as a registered dental assistant; or 4. Have at least one year of clinical practice as a dental assistant in a state that does not require registration; and 5. Be employed by a licensed dentist and whose policies allow the dental assistant to perform procedures related to the expanded scope of practice.

DEA 830 - RDA Nitrous Oxide Monitoring 1.00
This course is designed to provide the theoretical concepts and skills associated with monitoring of nitrous oxide and oxygen sedation. Course content provides the student with awareness of the indications and contraindications for nitrous oxide and oxygen sedation use, a working knowledge of the equipment, understanding of the procedure for administering nitrous oxide and oxygen sedation, and prepares the student to monitor nitrous oxide and oxygen sedation. Instructor consent required. To be eligible to register for this course, students must: 1. Be a graduate of an ADA-accredited dental assistant program; or 2. Be currently certified by the Dental Assisting National Board; or 3. Have at least one year of clinical practice as a registered dental assistant; or 4. Have at least one year of clinical practice as a dental assistant in a state that does not require registration; and 5. Be employed by a licensed dentist and whose policies allow the dental assistant to perform procedures related to the expanded scope of practice.

DRA 112 - American Film 3.00
This course demonstrates the full impact of Hollywood filmmaking as an art form, economic force, and cultural indicator. It explores the deeper meaning of American movies—the hidden messages of genres, the social and psychological effects of Hollywood film style, and the mutual influence of society and popular culture.
DRA 130 - Acting I  3.00
This course introduces the study and theory of the fundamentals of the actor's art as a means of improving self-expression and communication. Students focus on relaxation and physical awareness, and on developing their imagination, concentration, and characterization skills, through improvisation and other exercises. Voice production and physical techniques are also emphasized.

DRA 949 - Special Topics  1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

DRF – DRAFTING

DRF 113 - Fundamentals of Technical Drafting  3.00
This is a beginning course for students with little or no previous experience in drafting. The course will introduce students to essential concepts necessary for a fundamental understanding application of technical drawing. The topics include lettering and instrument linework techniques, orthogonal projection principles, and basic multiview drawing techniques.

DRF 121 - Fundamentals of Technical Drafting II  3.00
This course is a continuation of drafting fundamentals emphasizing working drawings, detailing, dimensioning practices, tolerancing, auxiliaries, and section views. Students build on previous instruction of basic drafting and design. Prerequisite: DRF 113

DRF 917 - Experimental Course  1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

DRF 949 - Special Topics  1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

ECE – EARLY CHILDHOOD EDUCATION

ECE 103 - Introduction to Early Childhood Education  3.00
This course gives students a historical and philosophical foundation of the field of early childhood education. It includes an overview of assessment and evidence-based practices. The course also addresses the influences of family-centered practice, inclusion, culture, and language. Students explore early childhood careers.

ECE 106 - Child Development Associate Standards  1.00
This course assists the eligible Child Development Associate (CDA) credential candidate with developing and preparing for the Preschool, Infant-Toddler or Family Child Care CDA verification visit and assessment. Students will develop a professional portfolio which includes their professional philosophy statement and various educational artifacts. General topics for discussion include: planning a safe, healthy learning environment, steps to advance children's physical and intellectual development, positive ways to support children's social and emotional development, strategies to establish productive relationships with families and effective program operation, maintaining a commitment to professionalism, observing and recording children's behavior and principles of child growth and development. This course is offered online via the Iowa Community College Online Consortium. Prerequisite: ECE 103, ECE 158, ECE 243, ECE 221

ECE 112 - Portfolio Development I  1.00
This course guides students' development of a professional early childhood education portfolio showcasing their knowledge, skills and dispositions in alignment with the NAEYC Standards for Professional Preparation of Students at the Associate Degree level.

ECE 113 - Portfolio Development II  1.00
This course guides students' completion and presentation of a professional early childhood education portfolio showcasing their knowledge, skills and dispositions in alignment with the NAEYC Standards for Professional preparation of Students at the Associate Degree level. This course must be taken in the final semester of the Early Childhood program. Program Coordinator permission required. Prerequisite: ECE 112, ECE 262

ECE 133 - Child Health, Safety, and Nutrition  3.00
This course 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. It blends current theory with problem-solving, practical applications and assessments. Course content includes collaboration with families and assesses the role of culture, language and ability on health, safety and nutrition decisions in early childhood settings. Students will need to complete or provide proof of current certification in the following: Mandatory Child Abuse Reporter training; Universal Precautions/Bloodborne Pathogens training; Infant, Child and Adult CPR; Pediatric and Adult First Aid training.

ECE 158 - Early Childhood Curriculum I  3.00
This course focuses on the development, implementation and assessment of appropriate environments and curricula for young children ages three through eight years old. 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 - Early Childhood Curriculum II  3.00
This course focuses on the development, implementation and assessment of appropriate environments and curricula for young children ages three through eight years old. 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: emergent literacy, math, science, technology and social studies. Prerequisite: ECE 158

ECE 170 - Child Growth and Development  3.00
This course reviews typical and atypical development of children from conception to adolescence in all developmental domains. It examines interactions among child, family, and society within a variety of community and cultural contexts and how each impacts the developing child. This course also addresses theories and evidence-based practices associated with understanding and supporting young children.

ECE 215 - Home, School & Comm Relations  3.00
This course focuses on current understanding of supporting children and families in relation to home, school and community contexts. Emphasis is on building respectful, culturally sensitive relationships with families, utilizing community resources and working with diverse families. Students are required to have a current background check on file before the first class meeting. Program Coordinator permission required. Prerequisite: ECE 103, ECE 170, ECE 241

ECE 221 - Infant/Toddler Care and Education  3.00
This course focuses on care, education and assessment of children from birth to thirty-six months. It prepares students to utilize developmentally-appropriate, evidence-based practices, including responsive routines and curriculum, collaborative relationships with culturally, linguistically, and ability-diverse children and families and a focus on the whole child in inclusive settings.
**ECN – ECONOMICS**

**ECN 120 - Principles of Macroeconomics** 3.00
This course addresses the essential concern of macroeconomics; understanding and improving the performance of the economy as a whole by studying topics such as the effect of fiscal policy and monetary policy on inflation, unemployment and economic growth in a global economy.

**ECN 130 - Principles of Microeconomics** 3.00
This course provides tools to analyze the choices made by households, firms and governments, and how these choices affect various domestic market structures and international markets.

**ECN 917 - Experimental Course** 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

**EDU – EDUCATION**

**EDU 210 - Foundations of Education** 3.00
This course is an introduction to professional education providing a historical and philosophical background from which the student can examine his or her own commitment to education. Challenges and issues in education today will be discussed in the context of school organization, funding, curriculum, professionalism, legal issues, and effective teacher characteristics.

**EDU 218 - Initial Field Experience** 2.00
This course will provide opportunities to enhance understanding of the teaching profession and assist with decisions to pursue a career in education. Students will spend time observing K-12 classroom teaching with a licensed educator to gain insights and better understanding of the teaching and learning process. Prerequisite: EDU 210

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**ECE 241 - Early Childhood Lab** 2.00
This course provides students the opportunity to observe and interact with children in all three early childhood age divisions: birth to 36 months, 3 to 5 years, and 5 to 8 years in a variety of settings. Students also examine their professional dispositions and career expectations and continue to develop a professional portfolio. For successful completion of this course, students must have on file a high school diploma or GED. Students are required to have a current background check on file before the first class meeting and will need to meet current training and health requirements. Program Coordinator permission required. Prerequisite: ECE 103, ECE 158, ECE 170

**ECE 243 - Early Childhood Guidance** 3.00
This course focuses on developmentally appropriate, evidence-based approaches and positive guidance strategies for supporting the development of each child. It emphasizes supportive interactions and developmentally appropriate environments as well as the use of assessment to analyze and guide behaviors. Students study the impact of family and each child’s culture, language and ability on child guidance.

**ECE 246 - Observation and Assessment** 4.00
This course focuses on using observational techniques for assessment and guidance purposes. Students learn to consider children’s diverse culture, language and abilities when using assessment measures. Students are required to have a current background check on file before the first class meeting. Prerequisite: ECE 241, ECE 243, Program Coordinator permission.

**ECE 262 - Early Childhood Field Experience** 3.00
This course provides a supervised experience in selected early childhood settings serving children age’s birth through eight. It includes integration of theory and developmentally appropriate, evidence-based practice and provides an understanding of working with culturally, linguistically, and ability-diverse young children and families. Emphasis is placed on professional relationships and behavior, appropriate adult-child interactions, basic curriculum planning, and program routines. Students are required to have a current background check on file before the first class meeting. Prerequisite: ECE 133, ECE 159, ECE 221, ECE 243, ECE 241

**ECE 287 - Exceptional Learner** 3.00
This course provides an overview of special education and talented and gifted programs and policies for children birth through school age. It includes special education history and legislation as well as characteristics of federally-defined disability categories and IEP/IFSP components. This course prepares students to serve the diverse needs of exceptional students through the use of family-centered and team-based services, evidence-based assessment procedures and modification of teaching methods, classroom management, materials and curriculum. Prerequisite: ECE 170

**ECE 290 - Early Childhood Program Administration** 3.00
This course addresses the basic principles common to administering high quality early childhood programs. Topics include director’s roles and responsibilities, state and federal regulations, business procedures, staff development and hiring, policy development, fiscal and facility management, marketing, program evaluation, child care advocacy, family and community involvement. This course is designed for students who have completed the Early Childhood Studies diploma and persons interested in becoming a program administrator.

**ECE 917 - Experimental Course** 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

**ECE 930 - Administrative Practicum** 1.00
This course provides students with experience in a community-based setting designed to further competencies in early childhood program administration, management and leadership. Completion of Early Childhood Studies diploma program or current Child Development Associate (CDA) credential; and Instructor Approval., Corequisite: ECE 290

**ECE 932 - Internship** 2.00
This course provides on-the-job experience and practical application of the theories and concepts studied in Early Childhood Education course work through placement at a professional early childhood setting. It involves a coordinated effort between the student, Western Iowa Tech Community College faculty members and a work supervisor at the agency site. Cooperative sites could include area infant/toddler, preschool and early elementary programs in both public and private settings. Students will be required to complete a minimum of 128 hours at an approved early childhood site. Students are required to have a current background check on file before first class meeting. Students must also have current certification in CPR, First Aid, Universal Precautions, and Mandatory Child Abuse Reporter, and meet program health requirements. Prerequisite: ECE 262, Early Childhood Studies Diploma, Instructor Consent Required

**ECE 949 - Special Topics** 1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.
EDU 220 - Human Relations for the Classroom Teacher 3.00
This course includes interpersonal and intergroup relations and contributes to the development of sensitivity to and the understanding of the values, beliefs, lifestyles and attitudes of individuals and the diverse groups found in a pluralistic society and within current education settings. This course is a required component of Iowa Teacher Licensure.

EDU 240 - Educational Psychology 3.00
This course applies the principles of psychology in the field of education to classroom contexts. Topics include child/adolescent development, learning, motivation, instructional techniques, and assessment/evaluation.

EDU 245 - Exceptional Learner 3.00
This course provides an overview of special education regulations, policies and programs in educational settings. K-12 pre-service teachers learn the history of special education law, including IDEA, ESSA and other legislative measures, characteristics of the categories of disability per federal and state regulations, characteristics of talent and gifted programs, and basic components of an IEP. This course is a requirement for students seeking K-12 teacher state licensure.

EDU 255 - Technology in the Classroom 3.00
This course introduces prospective teacher-prep candidates and other interested students to a variety of digital tools and Internet resources along with best practices in the use of tools and technologies for classroom-related functions. The course focuses on both current theory and issues as well as on providing experiences that will enable the student to select and evaluate software and hardware for the classroom.

EDU 949 - Special Topics 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

EDU 917 - Experimental Course 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

EGT – ENGINEERING TECHNOLOGY

EGT 108 - Principles of Engineering 3.00
This course helps students understand the field of engineering and engineering technology. By exploring various technology systems and manufacturing processes, students learn how engineers and technicians use math, science, and technology. The course also includes concerns about social and political consequences of technological change.

EGT 142 - Fluid Power I 2.00
This course provides the basic principles and components of hydraulics and pneumatics through lecture and laboratory experiences. Students gain the ability to design and analyze common machinery and tools.

EGT 143 - Fluid Power II 2.00
This course emphasizes the practical application of setting up and troubleshooting typical industrial applications. Knowledge gained in EGT 142 Fluid Power I is utilized in this applications course. Prerequisite: EGT 142.

EGT 151 - Virtual Reality for Manufacturing 3.00
This course provides the student with hands-on knowledge of fundamental virtual reality environments and how they play a key role in the design/manufacturing of products and procedures. Prerequisite: MAT 772, MFG 322.

EGT 159 - Statics & Structural Design 4.00
This course provides students with a working knowledge of forces and the effects of forces acting on rigid bodies at rest. There is an emphasis on practical industrial applications throughout the course. Prerequisite: MAT 772.

EGT 169 - Mechanism & Motion 4.00
This course is a study of the motion of machine members and components without consideration of the forces and stresses caused by the motion. Graphical methods are used extensively in the solution of motion analysis problems. Prerequisite: MAT 772.

EGT 193 - Introduction to Engineering Design 3.00
This foundational course uses a design development process while enriching problem-solving skills. The course helps students create and analyze models using engineering technologies and software.

EGT 202 - Digital Electronics 3.00
This foundational course teaches applied logic through work with electronic circuitry, which students also construct and test for functionality. Prerequisite: EGT 108, EGT 193.

EGT 211 - Fluid Power III 1.00
This course concentrates on hydraulics and is a continuation of EGT 143 Fluid Power II. Emphasis is on the use of the knowledge gained previously toward the setting up and troubleshooting of typical industrial fluid power applications. Prerequisite: EGT 143.

EGT 400 - PLTW - Introduction to Engineering Design 3.00
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 also learn presentation techniques and develop a portfolio.

EGT 410 - PLTW - Principles of Engineering 3.00
This course will assist students with an understanding of the field of engineering and engineering technology. By exploring various technology systems and manufacturing processes, students learn how engineers and technicians use math, science, and technology. Drafting and design are primary aspects of the course. The course also includes concerns about social and political consequences of technological change.

EGT 416 - Civil Engineering and Architecture 3.00
This is a combined lecture and lab course. Study of Engineering and Architecture. Exploring various systems of engineering and architecture.

EGT 420 - PLTW - Digital Electronics 3.00
This course introduces the numbering systems used in digital circuits, including Boolean algebra. Circuits such as basic gates, counters, shift registers, and memories will be introduced as they apply to communications and computer systems used in industry.

EGT 917 - Experimental Course 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

EGT 949 - Special Topics 1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.
ELE – ELECTRICAL TECHNOLOGY

**ELE 101 - Industrial Safety** 1.00
This course covers mechanical, chemical, environmental and electrical aspects of safety. The role of OSHA in the workplace is presented. Students will become familiar with forms such as Material Safety Data Sheets and will be trained in the use of (PPE) Personal Protective Equipment and in other safety procedures related to materials handling and storage. Industrial hazards such as fall protection and caught-in/struck-by will be emphasized. Students will receive the OSHA 10 safety training and will be awarded an OSHA 10 card upon successfully completing this course.

**ELE 112 - Basic Electrical Theory** 3.00
This course will introduce the students to the fundamentals of electricity. Electrical topics will include AC and DC theory, Ohm’s Law, Electrical Circuits, Electrical Power Generation, Motors, and Transformers. This course emphasizes electrical safety as students will work with energized circuits.

**ELE 132 - Introduction to Wiring** 3.00
This course is a combined lecture and lab course, designed to instruct the student in Safety, Electrical Ethics, and Labor History. The student will be introduced to the materials, hand tools, power tools, and the installation requirements of the National Electrical Codes. Prerequisite: ELE 112

**ELE 157 - Advanced Commercial Wiring** 4.00
This course familiarizes students with materials, blueprints, National Electric Code requirements and wiring methods in commercial installations. Students are asked to demonstrate their skills in wiring, installing electrical systems and to bend and install conduit using safe and approved practices according to the National Electric Code standards. Prerequisite: ELE 132, Corequisite: ELE 184

**ELE 175 - Installation of Wiring Systems** 4.00
This course provides instruction and application activities in electrical theory and schematic print reading, and provides students opportunities to obtain fundamental hands-on skills required for electrical wiring. The students in this course will gain hands-on experience by wiring a house.

**ELE 184 - Field Installed Commercial Systems** 3.00
In this course students will have the opportunity to develop and apply the electrical skills learned in previous Electrician courses. Students will perform labs directly related to wiring expected in industry or on a job site. Proper OSHA safety standards will be followed and national electrical code will be emphasized. Prerequisite: ELE 175

**ELE 192 - Principles of Motors/Transformers** 3.00
This is a course introducing students to the principles of D.C. and A.C. motors and their connection and application. Students will install and repair transformers, including single and three phase connection for various voltages and applications. Prerequisite: ELE 112

**ELE 195 - Motor Control** 3.00
In this course students will learn the fundamentals of how motors are controlled with the use of various control devices. Industry standards in working safely with the installation, maintenance and troubleshooting will be introduced and performed. Electrical symbols, diagrams, equipment and methods used in the design and application of motor control circuits will be discussed. Prerequisite: ELE 112

**ELE 197 - Advanced Motor Control** 3.00
In this course students will gain an advanced knowledge of motors in circuits and of the components found in automated control systems. The use of solid state components and programmable controllers will be introduced. Students will have the opportunity to wire motors in a circuit following safety procedures recognized in the electrical industry. Prerequisite: ELE 195, ELE 112

**ELE 222 - Supervisory Control and Data Acquisition** 3.00
This course discusses concepts related to acquiring data to monitor and control automated equipment. (SCADA) Prerequisite: ELE 112, ELE 230

**ELE 224 - Electric Code Safety and Grounding Fundamentals** 1.00
This course introduces students to the purpose and use of the National Fire Protection Association (NFPA) National Electric Code (NEC), its history, and development with emphasis on proper grounding techniques in relation to the wind turbine industry. It also addresses electrical safety work requirements as outlined in the NFPA Electrical Safety Standards.

**ELE 241 - HMI/Motion Control Fundamentals** 3.00
This course focuses on the development and integration of Human Machine Interface (HMI) systems commonly used in conjunction with Programmable Logic Controllers, (PLC’s). Prerequisite: ELE 230

**ELE 312 - Variable Frequency Drives for Motor Control** 1.00
This course is designed to introduce the student to the principles of DC and AC motors including connection and application. A working knowledge of transformers, including single and three phase connection to various voltages and applications will be provided. Prerequisite: ELE 195, ELE 112

**ELE 917 - Experimental Course** 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

**ELE 949 - Special Topics** 1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

ELT – ELECTRONICS

**ELT 102 - Blueprint Reading** 2.00
This course is designed to give meaning to the lines and symbols found on a set of blueprints. Students use inanimate objects and familiar construction shapes or orthographic and isometric drawings to learn the understanding of shapes, sizes and dimensions. Topics include building terms and construction features of the carpentry, masonry, electrical, mechanical and plumbing trades.

**ELT 230 - PLC Applications** 3.00
This course introduces students to advanced PLC programming techniques. Students will have the opportunity to connect and program the PLC for a variety of simulated applications. Prerequisite: ELT 250

**ELT 250 - Programmable Logic Controllers** 3.00
This course is a combined lecture and laboratory class. This class introduces the use of PLCs, programming PLCs via ladder diagrams, and wiring PLCs to sensors and controllers.

**ELT 917 - Experimental Course** 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

**ELT 949 - Special Topics** 1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.
EMS – EMERGENCY MEDICAL SERVICES

EMS 114 - Emergency Medical Responder  2.00
This course emphasizes the development of student skills in emergency medical care procedures. Topics include life threatening emergencies, injuries to various body parts, techniques of moving patients, CPR-BLS, and the safety and well-being of the Emergency Medical Responder. Successful completion of course requirements allows students to write national certification examination. Students must have a current AHA BLS provider card (Course No. CCPR 1033).

EMS 217 - Emergency Medical Technician  7.00
This course is designed for individuals who anticipate working with an ambulance service, hospital emergency department, fire department, police department, mining operation, or in other occupational fields where medical emergencies are common. Course content includes but is not limited to an overview of anatomy and physiology; medical terminology; patient assessment; basic life support in relation to cardiac arrest, trauma, and other medical emergencies. Instruction in light extrication of the injured is additionally covered. This course also provides the student an opportunity to apply cognitive knowledge and psychomotor skills in a supervised clinical or field setting. Students must be 17 years of age at the time of enrollment of the course; have a health physical and immunizations up to date; have a current AHA BLS provider card (Course No. CCPR 1033); have successfully completed the Mandatory Reporter Course (CNUR 103); have a high school diploma or equivalent; have a health physical and immunizations up to date; have a current AHA BLS provider card (Course No. CCPR 1033); have successfully completed the agreed upon credit and contact hours. Instructor permission required. This course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required. This course is under the supervision of a faculty member and is a pilot course. Instructor consent required. Prerequisite: EMS 114.

EMS 312 - Advanced Emergency Medical Technician  7.00
This course will provide the student with roles and responsibilities of the EMS provider including injury prevention and infectious disease; an overview of human systems; pharmacology; venous access; airway management; training for management of medical and trauma emergencies; special considerations of the obstetric, neonatal, pediatric, and geriatric patients; and a focus on assessment-based management. This course will also provide the student the opportunity to apply past and current cognitive knowledge and psychomotor skills in a supervised clinical or field setting. Students must be 17 years of age at the time of enrollment of the course; have a high school diploma or equivalent; have a high school diploma or equivalent; have a health physical and immunizations up to date; have a current AHA BLS provider card (Course No. CCPR 1033); have successfully completed the course competencies have been met as determined by the program director. Instructor consent is required. Prerequisite: EMS 217, Corequisite: EMS 340, EMS 825, EMS 815

EMS 410 - Advanced Cardiac Life Support  1.00
This course will provide the student with an opportunity to apply cognitive knowledge and psychomotor skills as described by the National Highway Traffic Safety Administration, National Standard Paramedic Curriculum. To successfully complete this course, students must demonstrate competency in skills for patients of all ages within the scope of practice. The student will participate in and document patient contacts and field experience. Additional contact hours (up to 3 times stated minimum) may be needed to meet the course competencies. Permission of instructor required. Prerequisite: EMS 410, EMS 411, EMS 810, EMS 820 Corequisite: EMS 825, EMS 846, EMS 815, EMS 417

EMS 417 - Field Internship  1.00
Field internship provides the student with an accessibility/opportunity to serve as team leader in a variety of pre-hospital, advanced life support emergency situations. Under the mentoring of experienced advanced care preceptors, the student must successfully complete a minimum of 50 team leads. Students will assess, diagnose, and treat patients in this field internship. To successfully complete this course, students must demonstrate competency in skills for patients of all ages within the scope of practice. The student will participate in and document patient contacts and field experience. Additional contact hours (up to 3 times stated minimum) may be needed to meet the course competencies. Permission of instructor required. This course will commence after the majority of EMS 417 competencies have been met as determined by the program director. Instructor consent is required. Prerequisite: EMS 410, EMS 411, EMS 810, EMS 820, Corequisite: EMS 454, EMS 455, EMS 456, EMS 825, EMS 815

EMS 418 - Experimental Course  1.00-4.00
Permission of instructor required.
EMS 949 - Special Topics  1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

ENG – ENGLISH

ENG 105 - Composition I  3.00
This course is an exploration of writing as a process with attention to audience, purpose and patterns of exposition. Recommended ACT Composite of 22. Students may complete a writing sample to gauge preparedness for the course and then access instructional staff and resources in the Comet Learning Center both before and during the course to be successful.

ENG 106 - Composition II  3.00
This course is a continuation of ENG 105 with emphasis on developing more complex, sophisticated forms of exposition. It includes a research paper requiring library research, documentation, and bibliography. Prerequisite: ENG 105

ENG 150 - Fundamentals of English Grammar  3.00
This course is an overview of grammatical structure and functions that includes study of parts of speech, sentence types, sentence analysis, punctuation, spelling, capitalization and usage. This is not a developmental English composition or ELL course.

ENG 221 - Creative Writing  3.00
This course is an introduction to imaginative writing, offering instruction and extensive practice in writing fiction, poetry, and drama. Student writing is discussed in a workshop setting. Prerequisite: ENG 105

ENG 917 - Experimental Course  1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

ENG 949 - Special Topics  1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

ENV – ENVIRONMENTAL SCIENCE

ENV 111 - Environmental Science  4.00
A combined lecture and lab course focusing on environmental concerns: ecosystems, pollution, population, extinction, ethics, energy, food, conservation, and future interrelationships among these concerns.

ENV 917 - Experimental Course  1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

ENV 949 - Special Topics  1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

ESI – INTENSIVE ESL

ESI 001 - Intensive ESL Grammar I  2.00
This course is content-based intensive level I grammar for non-native English speakers. It introduces grammar patterns, present and past tense of regular and irregular verbs and modals. The course provides practical information about grammatical structures including nouns, articles and comparisons. This course is designed to be taken concurrently with Level I Reading, Writing, and Listening/Speaking classes as part of the Intensive ELL program. Prerequisite: Assessment by WITCC ESL program Corequisite: ESI 005, ESI 008, ESI 013

ESI 005 - Intensive ESL Reading I  2.00
This course is an entry-level intensive reading course designed for non-native English speakers. Students begin the acquisition of basic reading strategies including guessing meaning from context, identifying the main topic/idea, reading in phrases, finding details and using the dictionary. This course is designed to be taken concurrently with Level I Grammar, Writing, and Listening/Speaking as part of the Intensive ELL program. Prerequisite: Assessment by WITCC ESL program. Corequisite: ESI 001, ESI 008, ESI 013

ESI 008 - Intensive ESL Writing I  2.00
This is an entry-level intensive writing course designed for non-native English speakers. Students acquire basic writing skills at sentence level with correct capitalization, punctuation, spelling and beginning grammar structures. This course is designed to be taken concurrently with Level I Grammar, Reading, Listening and Speaking as part of the Intensive ELL program. Prerequisite: Assessment by WITCC ESL program. Corequisite: ESI 001, ESI 013, ESI 005

ESI 013 - Intensive ESL Listening/Speaking I  2.00
This course is an entry level intensive listening/speaking course designed for non-native English speakers. Students practice listening and speaking in formal and informal conversations, interviews, and announcements and recorded messages. Practice in pronunciations and reductions, stress and intonation are included. This course is designed to be taken concurrently with Level I Grammar, Reading, and Writing as part of the Intensive ELL program. Prerequisite: Assessment by WITCC ESL program assessment. Corequisite: ESI 001, ESI 005, ESI 008

ESI 020 - Intensive ESL Grammar II  2.00
This course is level II intensive grammar, designed for non-native English speakers. Emphasis is placed on practicing structure in eight basic verb tenses, modals, inфинитивes, gerunds and other structures. Students will develop skills for making comparisons and for expression of ideas, opinions and feelings. This course is designed to be taken concurrently with Level II Reading, Writing, and Listening/Speaking as a part of the Intensive ELL program. Prerequisite: Achieve level II on WITCC ESL assessment. Corequisite: ESI 026, ESI 031, ESI 036

ESI 026 - Intensive ESL Reading II  2.00
This course is level II intensive reading, designed for non-native English speakers. Students continue acquisition of reading strategies including guessing meaning from context, identifying the main idea, skimming, scanning, summarizing, identifying parts of speech and recognizing paraphrases. This course is designed to be taken concurrently with Level II Grammar, Writing, and Listening/Speaking as part of the Intensive ELL program. Prerequisite: Achieve level II on the WITCC ESL assessment. Corequisite: ESI 020, ESI 031, ESI 036

ESI 031 - Intensive ESL Writing II  2.00
This course is level II intensive writing designed for non-native English speakers. Students use the writing process to explore and organize ideas at the paragraph level, expand vocabulary, edit for spelling, grammar and word usage. This course is designed to be taken concurrently with Level II Reading, Grammar and Listening/Speaking as part of the Intensive ELL program. Prerequisite: Achieve Level II on the WITCC ESL Assessment Corequisite: ESI 020, ESI 026, ESI 036
ESI 036 - Intensive ESL Listening/Speaking II 2.00
This course is level II intensive listening/speaking, designed for non-native English speakers. Students focus on listening strategies, such as making predictions, taking notes and drawing inferences. Students continue production of English sound system and conversations about familiar topics through simulation of real life situations to help develop fluency and problem solving strategies. Prerequisite: Achieve Level II on the WITCC ESL Battery. Corequisite: ESI 020, ESI 026, ESI 031

ESI 046 - Intensive ESL Grammar III 2.00
This course is content-based intensive grammar III designed for non-native English speakers to develop fluency in usage of basic grammatical structures. Students focus on phrase, clause and sentence level structures and related connectors. Expanded use of passive voice and introduction of conditional structures is included. This course is designed to be taken concurrently with Level III Reading, Writing and Listening/Speaking as part of the Intensive ELL program. Achieve level 3 on WITCC ESL Assessment, Corequisite: ESI 051, ESI 056, ESI 061

ESI 051 - Intensive ESL Reading III 2.00
This course is level III intensive reading, designed for non-native English speakers. Students develop reading skills including distinguishing general and specific ideas, identifying topics and topic sentences, skimming and scanning, distinguishing facts from theories and facts from opinions, and literal and figurative meanings. This course is designed to be taken concurrently with Level III Grammar, Writing, and Listening/Speaking as part of the Intensive ELL program. Achieve Level III on WITCC ELL Assessment, Corequisite: ESI 056, ESI 046, ESI 061

ESI 056 - Intensive ESL Writing III 2.00
This course is level III intensive writing, designed for non-native English speakers. The course leads students through the writing process by providing a wide variety of activities to help master skills necessary for academic writing. This course is designed to be taken concurrently with Level III Grammar, Reading, and Listening/Speaking as a part of Intensive ELL Program. Prerequisite: Achieve level III on WITCC ESL assessment. Corequisite: ESI 046, ESI 051, ESI 061

ESI 061 - Intensive ESL Listening/Speaking III 2.00
This course is level III intensive listening/speaking designed for non-native English speakers. It includes strong emphasis on comprehension of oral language as spoken by native English speakers. Students continue to practice pronunciation, stress, intonation and rhythm of speech to reduce native accents. Emphasis in developing skills in idiomatic expressions, negotiation, reducing miscommunication, and using various levels of directness is provided. Prerequisite: Achieve level III on WITCC ESL Battery. Corequisite: ESI 046, ESI 051, ESI 056

ESI 071 - Intensive ESL Grammar IV 2.00
This course is intensive level IV grammar, designed for non-native English speakers. Through developmental instruction and multiple practice opportunities students further develop their grammar skills, working towards college level proficiency. This course is designed to be taken concurrently with Level IV Reading, Writing and Listening/Speaking as part of the Intensive ELL program. Prerequisite: Achieve level IV on WITCC ESL assessment. Corequisite: ESI 081, ESI 085, ESI 089

ESI 081 - Intensive ESL Reading IV 2.00
This course is Level IV reading designed for non-native English speakers. Students develop higher order comprehension skills. Emphasis in utilizing strategies and skills to increase reading speed and building vocabulary is provided. Reading a variety of academic passages is incorporated in this course. This course is designed to be taken concurrently with Level IV Writing, Grammar and Speech/Listening as part of the Intensive ELL program. Prerequisite: Achieve level IV on the WITCC ESL assessment. Corequisite: ESI 071, ESI 085, ESI 089

ESI 084 - Intro to American Culture 3.00
This course will introduce international students to American culture, government, citizenship, and business through a combination of experience and classroom learning.

ESI 085 - Intensive ESL Writing IV 2.00
This course is level IV intensive writing designed for non-native English speakers. Students learn the skills necessary to produce written work required in college level programs. Multiple strategies will be learned including outlining, summarizing, revising and rewriting a composition to encourage independent writing. This course is designed to be taken concurrently with Level IV Reading, Grammar and Listening/Speaking as part of the Intensive ELL program. Prerequisite: Achieve level IV on WITCC ESL assessment. Corequisite: ESI 071, ESI 081, ESI 089

ESI 086 - Fundamentals of Reading and Writing 6.00
This introductory level class is designed for non-native speakers. This course integrates reading and writing skills to prepare students as they work toward college level readiness. Strategies to improve reading, writing, and vocabulary, and grammar knowledge are emphasized. Course may be repeated for credit. This course does not fulfill WITCC's general education requirements.

ESI 087 - Intermediate Reading and Writing 6.00
This intermediate level class is designed for international and non-native speakers. This course integrates reading and writing skills to prepare students as they work toward college level readiness. Strategies to improve reading, writing, and vocabulary knowledge are emphasized. Course may be repeated for credit. This course does not fulfill WITCC's general education requirements.

ESI 089 - Intensive ESL Listening/Speaking IV 2.00
This course is level IV listening/speaking, designed for non-native English speakers. Students use multiple strategies to expand vocabulary and further develop listening and speaking skills. Numerous opportunities to practice college level study skills including note taking and discussion participation are integral components of this course. This course is designed to be taken concurrently with Level IV Reading, Grammar and Writing as part of the Intensive ELL program. Prerequisite: Achieve level IV on WITCC ESL Assessment. Corequisite: ESI 071, ESI 081, ESI 085

ESI 096 - Reading and Writing 6.00
This course is designed for International students and/or non-native speakers. Students use multiple strategies to expand vocabulary and further develop listening and speaking skills. Numerous opportunities to practice college level study skills including note taking and discussion participation are integral components of this course. This course is designed to be taken concurrently with Level IV Reading, Writing and Listening as part of the Intensive ELL Program. Prerequisite: Achieve level IV on WITCC ESL Assessment. Corequisite: ESI 071, ESI 081, ESI 085

ESI 917 - Experimental Course 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

ESI 949 - Special Topics 1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

FIN – FINANCE

FIN 020 - Introduction to Banking and Budgeting 3.00
This course integrates basic banking concepts and budgeting skills with simulations of real-life financial responsibilities such as paying bills with checks/debit cards, paying rent, investing money, planning for education, and other financial responsibilities. Instructor permission required.
FIN 030 - Introduction to Financial Literacy 3.00
This course introduces the student to real world concepts that relate to their daily lives. The student will learn how to apply basic concepts to the tasks they will use in the real world, including earning a paycheck, managing a bank account, using credit cards, creating a budget, purchasing a car and home, insurances, retirement, investing and financial planning. Instructor permission required. Prerequisite: FIN 020

FIN 040 - Financial Literacy 3.00
This course expands on the real world concepts introduced in Introduction to Financial Literacy. Students learn how to apply basic concepts to the tasks they will use in the real world, including what is needed for income tax preparations, purchasing a car and home, insurances, retirement, investing and financial planning. Instructor permission required. Prerequisite: FIN 030

FIN 121 - Personal Finance 3.00
This course is an overview of personal financial planning with emphasis in the areas of personal money management, budgeting, taxes, investments, and risk. This course also covers the process of buying/leasing autos, and purchasing a home. Students are introduced to issues relating to credit management and insurance products as well.

FIN 130 - Principles of Finance 3.00
This course builds on basic knowledge in the areas of accounting and economics. Emphasis is placed on financial analysis and planning as well as working capital management. Prerequisite: ACC 152

FIN 917 - Experimental Course 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

FIN 949 - Special Topics 1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

FIR – FIRE SCIENCE

FIR 124 - Building Construction 3.00
This course provides the components of building construction related to firefighting and life 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.

FIR 141 - Fire Fighter II 2.00
This course provides basic fire training relating to the NFPA 1001 standard for Fire Fighter Professional Qualifications. It reflects the most current standards as adopted by the Fire Service Training Bureau and can prepare students to take the written Fire Fighter Two exam and the Practical Skills Performance exam. Prerequisite: All Fire Fighter II candidates must be certified Fire Fighter I prior to entering the Fire Fighter II certification process. All Iowa Fire Fighter I certifications issued by the Fire Service Institute meet this requirement. Those seeking reciprocity should direct their questions to the Fire Service Institute. Prerequisite: FIR 320

FIR 152 - Fire Protection Systems 3.00
This course is an examination of devices and systems that support the fire service in the detection and suppression of fire.

FIR 213 - Principles of Emergency Services 3.00
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; and introduction to fire strategy and tactics.

FIR 320 - Essentials of Firefighter I 4.00
This course provides basic fire training relating to the NFPA 1001 standard for Fire Fighter Professional Qualifications. It reflects the most current standards as adopted by the Fire Service Training Bureau and can prepare students to take the written Fire Fighter One exam and the Practical Skills Performance exam.

FIR 322 - Hazardous Materials: Operations Level 1.00
This course focuses on hazardous materials operations and follows the requirements of NFPA 472 for the standard for competence of responders to hazardous materials/Weapons of mass destruction incidents.

FIR 917 - Experimental Course 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

FLF – FOREIGN LANGUAGE: FRENCH

FLF 141 - Elementary French I 4.00
This course is for beginners; not recommended for students who have had two or more years of high school French. Introduction to French language and culture through development of reading, writing, listening, and speaking skills.

FLF 142 - Elementary French II 4.00
This course is a continuation of FLF 141 and introduces French language and culture through development of reading, writing, listening, and speaking skills. It further emphasizes and develops pronunciation, vocabulary, and basic grammar. Prerequisite: FLF 141

FLF 231 - Intermediate French I 3.00
This course provides a thorough review of essential French grammar. Students further develop their reading, writing, listening and speaking skills through extensive speaking and writing situations and reading of French literature. Prerequisite: FLF 142

FLF 232 - Intermediate French II 3.00
This course is a continuation of FLF 231. Students will further develop their reading, writing, listening and speaking skills through extensive speaking and writing situations and reading of French literature. Prerequisite: FLF 231

FLF 917 - Experimental Course 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.
FL 949 - Special Topics 1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

FLG – FOREIGN LANGUAGE: GERMAN

FLG 141 - Elementary German I 4.00
This course is an introduction to German language and culture through development of reading, writing, listening and speaking skills. Not recommended for students who have had two or more years of high school German.

FLG 142 - Elementary German II 4.00
This course is a continuation of FLG 141 furthering the development of reading, writing, listening and speaking skills. Prerequisite: FLG 141, Instructor consent.

FLG 917 - Experimental Course 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

FLG 949 - Special Topics 1.00-4.00
An in-depth study or project in German under the supervision of a faculty member and approved by the department head. May not duplicate a course in the catalog. Instructor permission required.

FLS – FOREIGN LANGUAGE: SPANISH

FLS 100 - Spanish for Professionals: Law Enforcement 1.00
This course is designed to prepare students with maintainable skills to learn and to speak Spanish with a limited and targeted proficiency. Utilizing interrogatory methods students will learn to speak and ask questions in Spanish in order to obtain limited information needed for Law Enforcement. Students will develop a limited reading, writing, listening, and speaking proficiency. Content-specific training and assessment techniques will be presented.

FLS 101 - Spanish for Professionals: Health Care 1.00
This course is designed to prepare students with maintainable skills to learn and to speak Spanish with a limited and targeted proficiency. Utilizing interrogatory methods students will learn to speak and ask questions in Spanish in order to obtain limited information needed for the Health Care profession. Students will develop a limited reading, writing, listening, and speaking proficiency. Content-specific training and assessment techniques will be presented.

FLS 102 - Spanish for Professionals: Business 1.00
This course is designed to prepare students with maintainable skills to learn and to speak Spanish with a limited and targeted proficiency. Utilizing interrogatory methods students will learn to speak and ask questions in Spanish in order to obtain limited information needed for the Business profession. Students will develop a limited reading, writing, listening, and speaking proficiency. Content-specific training and assessment techniques will be presented.

FLS 103 - Spanish for Professionals: Education 1.00
This course is designed to prepare students with maintainable skills to learn and to speak Spanish with a limited and targeted proficiency. Utilizing interrogatory methods students will learn to speak and ask questions in Spanish in order to obtain limited information needed for the Educational profession. Students will develop a limited reading, writing, listening, and speaking proficiency. Content-specific training and assessment techniques will be presented.

FLS 141 - Elementary Spanish I 4.00
This course introduces Spanish language and culture through development of reading, writing, listening, and speaking skills. It emphasizes pronunciation, vocabulary, and basic grammar, reading, and writing.

FLS 142 - Elementary Spanish II 4.00
This course is a continuation of FLS 141. It will expand on the learning from FLS 141 and develop a deeper understanding and comprehension of the language and culture. It will improve the student’s ability to interact with aural and written Spanish. It will improve the student’s ability to communicate in both written and spoken form in the language. Prerequisite: FLS 141

FLS 231 - Intermediate Spanish I 3.00
Thorough review of essential Spanish grammar. Further develops reading, writing, listening, and speaking skills through extensive speaking and writing situations and reading of Spanish literature. Expands on cultural aspects of the Spanish-speaking world. Prerequisite: FLS 142

FLS 232 - Intermediate Spanish II 3.00
This course further develops the skills learned in FLS 231 in reading, writing, listening and interpreting Spanish. It further expands the knowledge of culture and customs of the Spanish-speaking world. Prerequisite: FLS 231

FLS 917 - Experimental Course 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. The purpose of this course is to guide in the formal development of new curricula. This course may not duplicate any course already in the catalog. Instructor consent required.

FLS 949 - Special Topics 1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

GEO – GEOGRAPHY

GEO 121 - World Regional Geography 3.00
This course is a geographic survey of nations and continents with an emphasis on important physical characteristics of the major regions of the world. Attention is devoted to demographic, economic, political, and cultural development and the consequent contemporary relationship with each other.

GEO 917 - Experimental Course 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

GEO 949 - Special Topics 1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

GRA – GRAPHIC COMMUNICATIONS

GRA 100 - Mac OS 1.00
This course is an introduction to the Apple® Macintosh operating system. Topics covered will include Mac OS interface, logging in as a user, customizing your workspace, connecting to a server, creating, naming and saving folders, burning CDs, introduction to iLife, and identifying hardware.
GRA 131 - Digital Layout 3.00
This course is an introduction to software used for page layout, print design and publishing. Students are introduced to and practice typography skills by combining text with digital images to create professional layouts. This course also provides the essential skills of digital document construction using Adobe® Acrobat. Students learn the skills needed to create a variety of interactive digital documents in the Adobe Portable Document Format.

GRA 132 - Digital Layout II 3.00
This course provides instruction in intermediate level page layout software that builds on previously learned skills introducing new techniques. Students work with paragraph and character styles, multiple page documents with master pages and the use of libraries as well as create rich interactive presentations. Prerequisite: GRA 131

GRA 140 - Digital Imaging 3.00
This course covers an introduction to the Mac OS interface and associated hardware. It also covers the Adobe Photoshop software, which is used to manipulate images used in digital and printed media. Topics include software interface, tools, retouching, collage, scanning, keyboard shortcuts, corrective filters and techniques, color correction and automation.

GRA 141 - Digital Imaging II 3.00
This course provides students with advanced techniques in using software to manipulate images for digital and printed media. Topics include automation techniques, speed, resolution, format and corrective filters. Students are introduced to common digital photography problems, color correcting, retouching and sharpening critical area of a photo. It approaches using digital imaging software as an art form. Prerequisite: GRA 140

GRA 173 - Typography 3.00
This course introduces the student to the history and principles of good typographic design, including traditional rules that govern typographic usage, how to select an appropriate typeface, and apply type expressively to enhance all forms of communication that depend on the printed word, including web design, publication design and advertising design. Prerequisite: GRA 201, GRA 131

GRA 180 - Interactive Design 3.00
This course is needed to keep pace with the ever-developing technology and theory in the area of Digital Marketing, Interactive Design and User Experience. This course provides theory and practice in planning, designing and producing digital marketing projects. Prerequisite: GRA 201, GRA 140, SMM 101

GRA 201 - Design Principles I 3.00
The course is the first in a series that serves as an introduction to the principles of design and idea generation with a strong emphasis on typography. Students explore how these principles are applied in the marketplace

GRA 202 - Portfolio I 3.00
This is a lab course designed to produce a portfolio through a series of projects and demonstrations. Students will learn to critique and revise projects to create portfolio-quality designed work. Prerequisite: GRA 132, GRA 140, GRA 207

GRA 203 - Portfolio II 3.00
This course is the second in a series designed to produce a portfolio through a series of projects, demonstrations and critiques. Emphasis is on meeting deadlines, proofreading, maintaining document consistencies and interpreting client needs. Students strive to produce a versatile and unique portfolio. Prerequisite: GRA 202

GRA 207 - Design Principles II 3.00
This course is a continuation of Design Principles I with an emphasis on idea generation, presentation, and interpreting client needs. This course also addresses the skills and techniques for producing, tracking, and monitoring design projects. Students learn a practical approach to project management and information design along with addressing usability issues for web design. Prerequisite: GRA 201

GRA 208 - Creative Career Seminar II 1.00
This course is a continuation of Creative Career Seminar I, designed for students in the digital arts to find inspiration, ideas and strategies to ignite their design ingenuity. Focus is on continual improvement of idea generation and development, cultivating the interests that spark creativity and finding new sources of inspiration. Prerequisite: GRA 241

GRA 209 - Vector Drawing 3.00
This course is an introduction to vector drawing tools used to create computer graphics in digital design. Students examine the interface to draw shapes and Bezier curves, and brushes to draw simple to complex shapes with layers. Advanced techniques using masks, meshes, blends and other drawing tools are explored. An emphasis is placed on key commands to facilitate production and precise drawing skills.

GRA 240 - Project Management for Creative Careers 2.00
This course enables students to manage creative projects effectively from start to finish. Creative projects face special challenges that set them apart from traditional business projects such as managing talent, services, freelancers and clients. These topics along with traditional project management topics will be covered. Prerequisite: GRA 286, GRA 207

GRA 241 - Creative Career Seminar 1.00
This course is designed for students in the digital arts to find inspiration, ideas and strategies to ignite their design ingenuity. Focus is on idea generation and development, cultivating interests that spark creativity and finding new sources of inspiration.

GRA 246 - Design Concepts and Trends 3.00
The course is the first in a series that serves as an introduction to the principles of design and idea generation with a strong emphasis on typography. Students explore how these principles are applied in the marketplace. Prerequisite: GRA 286, GRA 207

GRA 247 - Business Presentations 3.00
This course enables students to design memorable and engaging presentations by focusing on content planning, presentation design, info graphics and support materials. Students use a variety of presentation technologies to create visual stories that support their presentation message. Prerequisite: GRA 140, GRA 209

GRA 248 - Interactive Publications 1.00
This course provides experiences for students to assemble, design, and publish a dynamic iBook for the iPad using the iBooks Author software. The course focuses on the process of adding all of the components of a dynamic iBook, including engaging text, images, audio, video, 3D models, and dynamic web content. Prerequisite: GRA 132, GRA 207

GRA 255 - Motion Media Design I 3.00
This course introduces fundamental concepts for commercial video productions, including graphics and promos for a variety of advertising purposes. The focus is on design presentation and development, screen composition, graphic transitions and content. Students learn how to conceptualize and visualize motion graphic storyboards with digital techniques as required in the professional world using industry-standard motion graphic software. Prerequisite: GRA 140, GRA 209, GRA 240

GRA 286 - Creative Media 3.00
This course covers advertising and brand promotion theory as it applies to designers in graphic, web and marketing. Topics include creative marketing problem solving, the process and planning for successful advertising and promotion, selecting the appropriate media, and creative strategies for advertising and brand promotion.
GRA 325 - Digital Color Theory  3.00
This course provides insight into the effective use of color through the study of contemporary color theory including additive and subtractive color. This course involves the development of color perception, expression, and application in traditional and digital design, through a series of problem solving exercises and projects. Fundamental studio experiences, along with a historical perspective, will provide insight and understanding to the intrinsic power of color in design. Prerequisite: GRA 209, GRA 131

GRA 700 - Capstone for Creative Careers  1.00
This course involves students in campaign creation, brand management, marketing analytics and the implementation of social media, graphic design and web design tools for the completion of a capstone project. Students will experience teamwork and industry expectations of a marketing plan. Successful completion of required program courses for first, second, and third semesters prior to enrollment. Instructor consent required. Prerequisite: GRA 208

GRA 917 - Experimental Course  1.00-4.00
This pilot course is under the supervision of a faculty member and is approved by the division chair. The purpose of this course is to guide the student in the formal development of new curricula. This course may not duplicate any course already in the catalog.

GRA 932 - Internship  1.00-4.00
This course offers on-the-job training in an industrial setting using graphic or web design techniques. It allows students to gain experience and professional contacts in the industry and utilize their skills as graphic or web designers to create professional design work. Supervision of job tasks is through an industry professional and coordinated by the college instructor. Prerequisites: Successful completion of required program courses for first, second, and third semesters.

GRA 949 - Special Topics  1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

HCM – HOSPITALITY, CULINARY ARTS and MANAGEMENT

HCM 100 - Sanitation and Safety  2.00
This course provides students with a solid foundation in food service sanitation and safety. Upon completion, students may earn ServSafe Food Manager Certification.

HCM 116 - Fundamentals of Baking  3.00
This course introduces basic theory and preparation of baked items. The focus of the learning is on basic bakery skills, equipment use, recipes, terms, and measuring skills. Products include yeast products, quick breads, pies, fillings, cakes, and cookies. Prerequisite: HCM 100

HCM 188 - Knife Skills  2.00
This course covers all aspects of knife skills. Emphasis is placed on safety and commercial use. Corequisite: HCM 100

HCM 231 - Nutrition  2.00
This course provides an overview of nutrition-related topics including the psychology of eating and evaluation of food intake. Students integrate nutrition principles with culinary cuisine.

HCM 239 - Customer Service  2.00
This course will introduce students to all aspects of customer service in the business realm and in the hospitality industry. The students learn the major components of a customer-focused environment and the key elements of a service culture. In order to be better prepared for the future, students identify key trends that will impact customer service in the years to come.

HCM 240 - Menu Planning and Design  2.00
This course is designed to give students an overview of menu planning. Topics include menu layout and design, truth-in-lending guidelines, nutrition in menu planning, menu prices, themed and seasonal menus, product mix and planning resources. Prerequisite: HCM 303

HCM 252 - Stocks and Sauces  2.00
This course introduces students to scratch cookery methods. Areas of study include stocks, thickeners, and roux-based sauces. Corequisite: HCM 100

HCM 262 - Financial Management, Purchasing and Cost Control  3.00
This course provides the principles and methods of food purchasing with emphasis on specifications and grading of various food products, as well as the cost control process applicable to a food service operation. Students learn financial procedures and controls used in the food service industry. Emphasis is on the principles of controlling food, beverage, and labor costs. Topics include cost and sales controls that can be established for food and beverage operations. Students analyze labor costs and methods to control them.

HCM 270 - Garde Manger  2.00
This course is an introduction to the cold food station (Garde Manger). Students will learn a variety of techniques including cold appetizers, cheeses, dressings, salads and sandwiches. Corequisite: HCM 100, HCM 189

HCM 275 - Baking II  3.00
This course provides advanced techniques in pastry and cakes, laminated doughs and other desserts. It is a continuation of HCM 116: Fundamentals of Baking. Prerequisite: HCM 116

HCM 277 - Protein Fabrication  2.00
This course focuses on the identification, fabrication, handling, and storage of protein items to include poultry, beef, pork, lamb, shellfish, and finfish. Students are introduced to the concepts of protein cookery. Prerequisite: HCM 307

HCM 286 - Advanced Garde Manger  3.00
This course is a continuation of HCM 270, with increased emphasis on cold food preparation and preservation techniques. Topics include classical concepts such as chaud-froid, aspics, galantines, ballotines, advanced hors d’oeuvre, and charcuterie, as well as more modern techniques such as sous vide and pressure cooking, marinating and advancements in brining. Sausage making, cold-smoking, and curing will be discussed and practiced in the lab. Advanced, multi-step, and fish/shellfish specific entrée salads will also be included. Prerequisite: HCM 270

HCM 287 - Ingredient Identification  2.00
This course provides a fundamental knowledge of ingredients. Students develop their awareness of food products and the world of food.

HCM 303 - Front of House  3.00
This course provides the student the skills necessary to communicate with culinary employers, employees, and other stakeholders. The student will develop professional skills in table side and banquet service. Students should be aware that several lab hours may be outside of the regular academic day. Prerequisite: HCM 321, HCM 410

HCM 306 - Basic Cooking Methods  3.00
This course introduces students to the components and writing of recipes, the preparation of vegetables, moist heat cooking skills such as boiling, simmering, poaching, stewing and braising. Prerequisite: HCM 100, HCM 188, HCM 161
HCM 307 - Intermediate Cooking Methods 3.00
This course is a continuation of HCM 306 with an emphasis on food production in a guest-centered environment. Students will explore breakfast foods and their preparation. Students will also learn in depth the dry-heat techniques of Sautéing, Grilling and Broiling foods to varying degrees of doneness using classical techniques for all three areas. Students will plate and attractively present a variety of Sautéed, Grilled and Broiled foods for evaluation by the Chef-Instructor. Prerequisite: HCM 306

HCM 308 - Food Sustainability 2.00
This course introduces students to the importance of a variety of sustainability practices. Students will implement these practices in food-service operations as a means for controlling operating costs and for being good environmental stewards. Prerequisite: HCM 100

HCM 310 - Hospitality Law 3.00
This course provides an awareness of laws concerning hotel-motel management and illustrates the possible consequences of failure to satisfy legal obligations.

HCM 314 - Beverage Service 1.00
This course familiarizes students with beverage service, including alcoholic and non-alcoholic beverages. Students learn the tools used for specialty and mixed drinks, the set-up of the bar area for optimum efficiency, and an overview of alcoholic beverages, including wine, beer and spirits. Prerequisite: HCM 303

HCM 321 - Introduction to Hospitality Industry 1.00
This course develops an understanding of the hospitality industry and career opportunities in the field. Topics include culinary, hotel, tourism, event planning and other opportunities in the hospitality industry.

HCM 335 - Introduction to Event Planning 3.00
This course is an overview of the event management industry. Students will examine the industry and the developing trends in planning events.

HCM 355 - Ethnic World Cuisine 3.00
This course focuses on the use of ingredients through an exploration of various cuisines from around the world. Students study the significant historical, cultural, ethnic, and religious influences that are reflected in cuisines of the world. Prerequisite: HCM 275, HCM 307

HCM 410 - Culinary Seminar I 1.00
This course is designed to widen the students’ knowledge in the culinary field. Field trips, guest speakers, and other activities will be included.

HCM 411 - Culinary Seminar II 1.00
This course is a continuation of Culinary Seminar I and is designed to widen the students’ knowledge in the culinary field. Field trips, guest speakers, and other activities will be included. Also, preparation for being a successful intern will be discussed. Prerequisite: HCM 410

HCM 610 - Property Operations Management 3.00
This course is designed to give students an understanding of effective facilities management which provides a coordinated, comprehensive, preventive maintenance and repair services for all department facilities within an organization.

HCM 917 - Experimental Course 1.00
This pilot course is under the supervision of a faculty member and approved by the division chair. The purpose of this course is to guide in the formal development of new curricula. This course may not duplicate any course already in the catalog.

HCM 932 - Internship 1.00-4.00
This course provides on-the-job experience on campus or in the industry, giving the student experience and practical application of the competencies learned in the degree program. The internship is coordinated by the college instructor and supervised by an industry professional at the work site. Prerequisite: Permission of instructor, 2.0 cumulative GPA and a C (2.0) or better in core courses as defined by the program advisor.

HCM 941 - Practicum 1.00-4.00
This course is designed to allow the student to work, generally on campus, in a faculty supervised activity with well-defined expectations, activities and outcomes, applying the knowledge and skills from prior learning. Prerequisite: Instructor consent required. Instructor Permission

HCM 949 - Special Topics 1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

HCR – HEATING AND AIR CONDITIONING

HCR 112 - Heating Fundamentals 3.00
This course covers fundamental principles and skills for all common heating systems. This course is a combined lecture and lab course and includes discussions and demonstrations in heating fundamentals. Safety is greatly emphasized as students are working with actual voltages, and working equipment. Corequisite: ELE 112

HCR 120 - Gas Heating 3.00
This course is a combined lecture and lab course that covers various types of residential and commercial gas and electric heating systems. Studies include equipment sizing, installation, set up and repair. Students work with trainers and live equipment in the lab setting. Corequisite: ELE 112

HCR 137 - Hydronic Heating Systems 3.00
This course is a combined lecture and lab course studying the theory and applications in electrical resistance and oil and hydronic heating systems as they relate to residential and commercial heat loss requirements. Studies include installation, troubleshooting, wiring and control circuits. Prerequisite: ELE 112

HCR 140 - Heat Pumps 3.00
This course is a combined lecture and lab course introducing reverse cycle heating and the components and controls of this popular heat source. This course covers auxiliary heat, C.O.P., installation and maintenance of air-to-air and ground source systems, and includes system wiring and electrical troubleshooting. Corequisite: ELE 112

HCR 205 - Air Conditioning Principles 3.00
This course is a combined lecture and lab course which deals with the fundamentals of residential air conditioning systems. It emphasizes system components, types of refrigerants, principles of heat transfer, and diagnosis and repair of various systems used in the air conditioning industry. This course studies relationship to temperature and pressure variance including psychometric comparison as applied to commercial and residential air conditioning. Corequisite: ELE 112

HCR 305 - Fundamentals of Refrigeration 3.00
This course is a combined lecture and lab course covering the theory and laws governing refrigeration, the operation of refrigeration systems, heat transfer, components, and test equipment. It also covers the different soldering and brazing methods and materials used in refrigeration service. Emphasis is on the recovery, recycling and charging methods used. Corequisite: ELE 112

HCR 410 - Electrical Applications I 3.00
This course is a combined lecture and lab course that presents the theory and operation of all motors and controls found in air conditioning, heating, and refrigeration systems. The course includes design, wiring, troubleshooting, and replacement. Corequisite: ELE 112
HCR 715 - Blueprint Reading  1.00
This course is designed to give meaning to the lines and symbols found on a set of blueprints. It uses inanimate objects and familiar construction shapes or orthographic and isometric drawings to teach the understanding of shapes, sizes and dimensions. Studies include building terms and construction features of the carpentry, masonry, electrical, mechanical and plumbing trades.

HCR 917 - Experimental Course:  1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

HCR 932 - Internship  1.00-4.00
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. Prerequisite: ELE 101

HCR 933 - Internship - Air Conditioning  1.00-4.00
This course provides on-the-job training giving the student experience and practical application of the competencies learned in the air conditioning 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. Prerequisite: ELE 101

HCR 949 - Special Topics  1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

HIS – HISTORY

HIS 110 - Western Civilization: Ancient to Early Modern  3.00
This course traces the Western tradition from Antiquity through the seventeenth century. Emphasizes the process of change and the dynamics and interrelationships of events of the major societies, governance, and cultures of the Ancient, Medieval, Renaissance and beginnings of early modern times.

HIS 111 - Western Civilization: Early Modern to Present  3.00
This course surveys Western history from the age of Enlightenment in the Eighteenth century to present day.

HIS 151 - U.S. History to 1877  3.00
This course is an introduction to the basic people, issues, movements, and events which shaped the American experience from Pre-Columbian times to the Civil War and Reconstruction.

HIS 152 - U.S. History Since 1877  3.00
An introduction to the basic people, issues, and events which shaped the American experience from the Reconstruction era to the present.

HIS 211 - Modern Asian History  3.00
This course surveys the historical, geographical and economic context of the development of the Pacific Basin region: Northeast Asia (China, Japan, Korea, Russia, and the Far East), Southeast Asia (Laos, Kampuchea, Vietnam, Thailand, Myanmar, and India). Examines issues such as modernity versus traditional; the conflict between east and west, political authority and economic growth; the United States in the Pacific; and cultural differences of each individual group of people.

HIS 917 - Experimental Course  1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

HIS 949 - Special Topics  1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

HIT – HEALTH INFORMATION TECHNOLOGY

HIT 136 - Scribe Fundamentals I  3.00
This course provides a basic overview of the roles and responsibilities of a medical scribe. Content areas include federal, state, local and joint commission standards; Medicare and Medicaid core measures; and documentation and medical legal liability. Corequisite: HSC 114, BIO 163

HIT 236 - Scribe Fundamentals II  4.00
This course expands on Scribe Fundamentals I and includes basics of history and physical documentation, functions of hospital or clinic electronic data information, and clinical scenarios in the medical sub-specialties. Prerequisite: HIT 136

HIT 242 - Coding I (ICD-10)  3.00
This course provides instruction in the ICD-10 coding system. Students assign ICD-10 codes to medical diagnoses and procedures. Prerequisite: HSC 114, HIT 248, Corequisite: MAP 123

HIT 244 - Basic CPT Coding  3.00
This course provides training in using the CPT (Current Procedural Terminology) coding system to report medical procedures information. Students will assign CPT codes to surgical operations and procedures. Prerequisite: HSC 114, HIT 248, Corequisite: MAP 123

HIT 248 - Essentials of Medical Coding  2.00
This course provides a basic overview and understanding of the usage of ICD and CPT coding and how they are reported in medical practices. Students understand the logic behind the usage of ICD and CPT. Students assign codes to case studies for a better understanding of how ICD, CPT, modifiers, and HCPCS work together for insurance payment and compliance regulations.

HIT 284 - Auditing of Evaluation & Management Codes  1.00
This course provides training on how to conduct an evaluation and management (E/M) audit for physician practices. Students simulate auditing and evaluating a physician's documentation to make sure the physician has fulfilled the requirements of either the 1995 or 1997 documentation guidelines per the AMA and CMS. Corequisite: HIT 244

HIT 301 - Electronic Health Records  3.00
This course provides students the opportunity to create, collect, manage, retrieve, and access medical records using an electronic records system. Students will use software to create/edit patient demographic and provider files used in an ambulatory care setting. Corequisite: HSC 114

HIT 313 - Medical Office Computer Applications  1.00
This course provides the medical administrative student with “hands-on” experience in the use of a computerized, medical office, practice management system. The student will create, retrieve and edit patient demographic and doctor and financial files, enter CPT and ICD-CM (procedures and diagnoses) codes, enter charges for services, post insurance reimbursement and cash payments, make adjustments and refunds on accounts, generate insurance claims forms, schedule and change appointments and run and analyze practice management reports. Prerequisite: MAP 123, Corequisite: MAP 141
HIT 917 - Experimental Course  1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

HIT 949 - Special Topics  1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

HSC – HEALTH SCIENCE

HSC 105 - Introduction to Health Occupations  1.00
This course is designed to provide information on career options for individuals who are interested in pursuing a career in the health care industry. Students are given opportunities for career exploration through research and projects. Topics include: health care delivery systems, legal and ethical issues, health promotion, wellness, and characteristics of health care workers.

HSC 109 - Exploring Health Careers and Building Teams  3.00
This course is designed to provide information on career options for individuals who are interested in pursuing a career in the healthcare industry. It includes the study of team dynamics and communication techniques necessary to work and succeed in the healthcare field. Students are given opportunities for career exploration through research and projects utilizing the internet and library databases. It also provides instruction in browsing the internet, using email, and other computer literacy tools necessary for taking online courses and for careers in the healthcare industry.

HSC 111 - Issues in Health and Society  3.00
This course presents an overview of current issues, concepts, and theories in health. It provides students with well-developed, carefully considered, and sharply opposed points of view on issues in health and society. This course provides both an overview of areas of conflict in health as well as ways of looking at the conflicts. The purpose of this course is to introduce a number of contemporary topics in order to illustrate how controversies are viewed from a healthcare perspective.

HSC 114 - Medical Terminology  3.00
This course presents medical terminology as the language of medicine. It also studies spelling, pronunciation, and usage, emphasis on word analysis and construction of definitions.

HSC 122 - English/Spanish Medical Terminology  3.00
This course presents medical terminology as a language of medicine in both English and Spanish. Correct pronunciation, spelling, definition, word translation, and usage covered. Pre-requisites: ESL at level C (Advanced ESL); Test scores on Comprehensive Adult Student Assessment System (CASAS) Test at or above 220 (Scaled Score).

HSC 123 - Transcultural Concepts in Health/ Illness  1.00
This course explores perception of health and illness among consumers and health care providers. Topics include cultural assessment, health practices of different cultures, conflicts in health care and strategies to request and provide culturally sensitive care.

HSC 127 - Kinesiology  4.00
This course combines lecture and lab to provide the student a basic understanding of normal human body movement as related to skeletal, articular, and muscular systems. Anatomical palpations, human gait analysis, selected clinical testing, and basic biomechanical principles are also included. Corequisite: BIO 174

HSC 140 - Basic Interpretation for Healthcare  1.00
This course will provide students with the knowledge to provide interpreter services in a health care setting. Students will learn basic interpretation skills and the roles of an interpreter. Students will simulate proper techniques in an interpretation session. Upon completion of this course, students will be able to analyze the importance and function of good healthcare interpreters. This course provides the student with the knowledge to sit for the national interpreter certification. Instructor Permission.

HSC 143 - Pharmacology  3.00
This course provides the student with a framework of knowledge to recognize the basic concepts and principles of pharmacology. Major drug classifications and their actions, indications for use, adverse effects, interactions and contraindications for use are explored. Students are introduced to routes of medication administration, dosage calculation, and patient education related to medications.

HSC 148 - Medication Aide  3.00
This course is designed to prepare students to safely administer nonparenteral medications in nursing facilities and related areas. Students will receive on-the-job training. Prerequisites: Employed a minimum of six months in a sponsoring facility. If employed in a long-term-care facility, have a current standing on the Iowa Direct Care Workers Registry.

HSC 156 - Health Occupations Clinical Requirements  1.00
This course provides health occupation students the opportunity to complete required pre-clinical training and documentation prior to clinical rotation.

HSC 170 - Health Care Interaction  2.00
This course is designed to give the student an overview of the various influences on communication, the diversity in society, interactions occurring in the workplace and ethics. Various communication skills including conflict resolution and assertiveness skills, written documentation, values clarification and moral development are discussed. This course is required for the Physical Therapist Assistant Program. Corequisite: PTA 130

HSC 173 - Nurse Aide Theory  3.00
This course is designed to provide the student with the fundamentals of patient care in the health care environment. Students learn basic anatomy, physiology, medical terminology, meeting human needs, safety measures, infection control, and physical care. Corequisite: HSC 174

HSC 174 - Nurse Aide Clinical  1.00
This course expands the students’ knowledge of tasks, assessments and observations of patients in the health care environment. Students develop technical skills specific to complex needs of the patient. Corequisite: HSC 173

HSC 178 - Advanced Nurse Aide  4.00
This course is designed as an optional additional unit of instruction to be given either in conjunction with or following the approved 75 hour Nurse Aide course. The 75 hour Nurse Aide course meets the OBRA (Nursing Home Reform) requirements for nurse aides who work in long term care. This additional material provides the learner with content emphasizing the knowledge, attitude and skills necessary for providing patient care in the acute setting. Prerequisite: HSC 173, HSC 174, documentation by a transcript or certificate of completion of an approved nurse aide course.

HSC 198 - Dental Terminology  2.00
This lecture course provides an introduction to dental terminology related to patient care, documentation, and the business aspect of dentistry.

HSC 218 - Clinical Pathology for Allied Health  3.00
This course is an introduction to a variety of medical and surgical conditions which include etiology, symptoms, diagnostic procedures, and treatment. Where appropriate basic pharmacology and effects will be included. Application of therapy according to diagnosis will be discussed. Prerequisites: HSC-114 or BO-169 or BIO 163

Prerequisite: HSC 114, BIO 169, BIO 163
HSC 245 - Team Building 1.00
This course involves the study of team dynamics and communication techniques necessary to promote effective, collaborative team outcomes. Topics include: communication, delegation of responsibilities, goal setting, coaching, conflict resolution, and roles of team members.

HSC 265 - Clinical Neurology 2.00
This lecture course provides students with a basic understanding of the central nervous system, peripheral nervous system, and autonomic nervous system in regard to anatomy, neuro-development, and function. This is the groundwork for understanding clinical neuropathologies, therapeutic analysis, and programming planning. Prerequisite: BIO 174

HSC 270 - Clinical Exercise Testing 3.00
This course combines lecture and lab experiences to provide students with an in-depth understanding of exercise testing. The course includes principles of pretest clinical evaluation, physical fitness testing and interpretation, specific indications, applications, protocols, measurements, supervision, interpretation of clinical exercise testing, and an overview of exercise prescription. Corequisite: BIO 169, BIO 151

HSC 272 - Certified Personal Trainer 3.00
This combined lecture and lab course involves the student in a variety of specific training practices for health fitness. Prerequisite: BIO 169, BIO 151, HSC 270, Corequisite: BIO 174

HSC 932 - Certified Personal Trainer Internship 1.00
This course provides practical experience in the field of personal training under the direct supervision of a certified personal trainer. The certified personal trainer will provide feedback and evaluation of the student. Instructor consent required. Corequisite: HSC 272

HSC 949 - Selected Topics 1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

HUM – HUMANITIES

HUM 101 - Introduction to the Humanities 3.00
This course explores the influence of philosophy, literature, drama, and the fine arts upon ancient and modern cultures, including the impact of other cultures upon America's approach to living.

HUM 220 - Mythology 3.00
Provides an understanding of the role of mythology in human history throughout the world. The relationships among myth, religion, and culture are explored.

HUM 287 - Leadership Development Studies 3.00
This course provides emerging and existing leaders the opportunity to explore the concept of leadership and to develop and improve their leadership skills. This course is designed to use a variety of learning techniques that may include, but not limited to, integration of humanities into the study of leadership, discussion, experiential exercises, film and shared-analysis.

HUM 917 - Experimental Course 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

HUM 949 - Special Topics 1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

IND – INDUSTRIAL TECHNOLOGY

IND 141 - Power Transmission 2.00
This course is designed to provide skills to work on and troubleshoot industrial drive systems including clutches, brakes and industrial bearings. A section on machinery lubrication is also included.

IND 462 - Pumps 2.00
This course introduces students to the principles of pumps including connections and applications. Students will gain working knowledge of centrifugal and positive displacement pumps along with operating conditions governing pressure and flows in the system.

IND 917 - Experimental Course 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

IND 949 - Special Topics 1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

LIT – LITERATURE

LIT 101 - Introduction to Literature 3.00
An introduction to the study of short fiction, poetry, and drama. Prerequisite: ENG 105

LIT 105 - Children's Literature 3.00
This course is a survey of children's literature suitable for elementary education. Focus is on the review and selection of materials as well as delivery techniques. Also emphasized is the role of literature in the child's total development.

LIT 110 - American Literature to Mid-1800's 3.00
This course surveys American literature from its beginnings through the Civil War. Prerequisite: ENG 105, LIT 101

LIT 111 - American Literature since Mid-1800's 3.00
A survey of American literature from the Reconstruction era to the present. Prerequisite: ENG 105, LIT 101

LIT 133 - Minority Voices in U.S. Literature 3.00
This course is an introduction to writers from American minority groups, considered in the social and cultural contexts of the various groups. Includes discussing and writing about relevant issues. Prerequisite: ENG 105

LIT 140 - British Literature I 3.00
This course is a survey of British literature from its beginnings through the Restoration and Eighteenth Century, considered in the social and intellectual contexts of the periods. Prerequisite: ENG 105, LIT 101

LIT 141 - British Literature II 3.00
This course is a survey of British literature from the Romantic Period to the present, considered in the social and intellectual contexts of the periods. Prerequisite: ENG 105, LIT 101

LIT 150 - World Literature I 3.00
This course is a survey of writers of the Western and the Eastern worlds from the ancient Greeks through the Early Modern Period, considered in the social and intellectual contexts of the periods. Prerequisite: ENG 105, LIT 101

LIT 151 - World Literature II 3.00
This course is a survey of writers of the Western and the Eastern worlds from the 18th century to the present, considered in the social and intellectual contexts of the periods. Prerequisite: ENG 105, LIT 101
LIT 185 - Contemporary Literature 3.00
An introduction to literature of the last three decades, studied in a social and cultural context. Prerequisite: ENG 105, LIT 101

LIT 917 - Experimental Course 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. The purpose of this course is to guide in the formal development of new curricula. This course may not duplicate any course already in the catalog.

LIT 949 - Special Topics 1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

MAP – MEDICAL ASSISTANT

MAP 123 - Administrative Medical Office Procedures 3.00
This is a lecture course that provides students with the knowledge and skills needed to work with patients, patient records, and professional responsibilities in the medical office.

MAP 134 - Medical Transcription I 3.00
This course provides training in the preparation of medical reports by combining transcription skills with medical terminology and basic anatomy and physiology knowledge. This includes production of rough draft and finished copy from a variety of medical settings. Prerequisite: ADM 105, 25 gvwpm minimum, Corequisite: HSC 114

MAP 135 - Medical Transcription II 3.00
This is the second of two medical transcription courses. Improvement of transcription skills and expansion of medical vocabulary used in preparing medical reports in specific specialty areas. This course emphasizes improving output and accuracy in producing a finished copy. Prerequisite: MAP 134

MAP 141 - Medical Insurance 3.00
This course introduces the major types of medical insurance coverage and reimbursement. This course also emphasizes insurance terminology, and preparation of insurance claims. It includes maintenance of reimbursement and claims records.

MAP 215 - Medical Laboratory Techniques 4.00
This course introduces a variety of the laboratory techniques required of a medical assistant working in a physician's practice. Prerequisite: BIO 163, MAP 333

MAP 333 - Fundamentals of Medical Assisting I 4.00
This course introduces students to the clinical aspects of the physician’s practice. It emphasizes the clinical competencies required to assess the patient and assist the physician. Corequisite: BIO 163, HSC 114

MAP 338 - Fundamentals of Medical Assisting II 4.00
This course expands upon the general competencies in Fundamentals of Medical Assisting I and is more specific to specialty procedures within a physician’s practice. Prerequisite: MAP 333, BIO 163

MAP 339 - Medical Assisting Principles and Concepts Review 2.00
This course involves interactive review. It is designed to integrate and review medical assisting practice within the approved scope of practice for medical assistants and review strategies in preparation for the medical assisting certification examination.

MAP 402 - Medical Law and Ethics 2.00
This course introduces principles of medical law, medical ethics, and bioethics. It will emphasize the function of law and ethical issues as it applies to the medical environment.

MAP 610 - Practicum 3.00
This course is an unpaid, on-site practicum experience in a medical facility during which students apply competencies learned in all medical assistant program courses. Prerequisite: MAP 333, BIO 163, 2.0 cumulative GPA, permission of advisor, and a C (2.0) or better in core courses as defined by the program advisor.

MAP 612 - Medical Assistant Externship 3.00
This course is an unpaid, on-site externship experience in a medical facility during which students apply competencies learned in all medical assistant program courses. Prerequisite: MAP 333, BIO 163, 2.0 cumulative GPA, permission of advisor, a C (2.0) or better in core courses as defined by the program advisor.

MAP 917 - Experimental Course 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

MAP 949 - Special Topics 1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

MAT – MATHEMATICS

MAT 102 - Intermediate Algebra 4.00
This course is applicable only to students who have basic knowledge of algebra. Reinforcement of topics from elementary algebra stressing problem solving, drills, conclusions obtained from graphs and other data, and a substantial expansion of radical equations. New topics are variations, exponential functions and logarithms, and quadratic equations. Additional supplemental instruction for the course is available through the Comet Learning Center. Minimum ACT Math score of 19 or required ALEKS Assessment score.

MAT 111 - Math for Liberal Arts 4.00
This course provides a broad mathematical knowledge to calculate, analyze, and solve day-to-day problems. Topics include number theory and the real number system, algebra, graph and data interpretation, calculator usage, mathematical reasoning process, problem solving techniques, probability and statistics, geometry, and consumer mathematics. Additional supplemental instruction for students will be available through the Comet Learning Center using ALEKS as an instructional tool. Minimum ACT Math score of 20. Students may also demonstrate preparedness and prepare for success in the course through completion of the ALEKS assessment.

MAT 117 - Math for Elementary Teachers 3.00
This course examines underlying concepts and connections in elementary school mathematics. Topics include the number systems, mental computation and estimation, sets, geometry, measurement, algebra, probability, statistics, calculator usage, mathematical reasoning process, problem solving techniques, and historical notes. Additional supplemental instruction for students will be available through the Comet Learning Center using ALEKS as an instructional tool. Minimum ACT Math score of 20. Students may also demonstrate preparedness and prepare for success in the course through completion of the ALEKS assessment.

MAT 121 - College Algebra 4.00
This course addresses linear functions and inequalities, quadratics, conics, polynomials and rational functions, exponential and logarithmic functions, linear systems, matrices and determinants. Additional topics may include sequences, series, permutations, combinations, and probability. Completion of Pre-requisite course or alternative assessment required for enrollment. MAT-102 Intermediate Algebra or a minimum ACT Math Score of 21. Students may also demonstrate preparedness through an ALEKS Assessment.
MAT 129 - Precalculus 5.00
This is an intensive course in College Algebra and Trigonometry. Topics include algebraic equations and inequalities, functions and their graphs, exponential and logarithmic functions, trigonometric identities and equations, sequences and series, and applications. An ACT Math score of 22 or demonstrated preparedness through an ALEKS assessment may be used in lieu of the pre-requisite course. Prerequisite: MAT 121

MAT 130 - Trigonometry 3.00
This course is designed for students anticipating taking calculus and/ or physics. The course includes right angle trigonometry, oblique trigonometry, trigonometric identities and equations, graphing, complex numbers, exponential and logarithmic functions, and applications of all topics. An ACT Math score of 21 or demonstrated preparedness through an ALEKS assessment may be used in lieu of the pre-requisite course. Prerequisite: MAT 121

MAT 156 - Statistics 3.00
This course is designed to provide the student with a foundation in statistical concepts and procedures. The emphasis is on descriptive statistics, probability, binomial and normal distributions, elementary sampling theory, hypothesis testing, and linear regression. An ACT Math score of 22 or demonstrated preparedness through an ALEKS assessment may be used in lieu of the pre-requisite course. Prerequisite: MAT 111 Math for Liberal Arts, or MAT 121 College Algebra

MAT 157 - Statistics 4.00
This course addresses theory, techniques, and applications of statistical analyses: descriptive statistics, probability, sampling estimation, test of hypotheses, ANOVA, linear regression, and nonparametric procedures. Computer skills and use is needed throughout. An ACT Math score of 22 or demonstrated preparedness through an ALEKS assessment may be used in lieu of the pre-requisite course. Prerequisite: MAT 111, MAT 121

MAT 201 - Applied Calculus 5.00
This course is a study of functions, limits, continuity, differentiation, and integration. Emphasis is on theory and applications throughout. The course is designed to satisfy the Calculus requirement for most non-math and non-engineering major students. An ACT Math score of 24 or demonstrated preparedness through an ALEKS assessment may be used in lieu of the pre-requisite course. Prerequisite: MAT 121

MAT 211 - Calculus I 5.00
This course is a review of analytic geometry and vector valued functions; a study of limits, continuity, differentiation, and integration with emphasis on theory, applications, and computer use throughout the course. An ACT Math score of 26 or demonstrated preparedness through an ALEKS assessment may be used in lieu of the pre-requisite course. Prerequisite: MAT 129, MAT 121, MAT 130

MAT 217 - Calculus II 5.00
This course is a continued study of integration along with a study of transcendental functions, numerical methods, indeterminate form, improper integration sequences and series, conics, and polar coordinates. Emphasis is placed on theory, applications, and computer use throughout. Prerequisite: MAT 211

MAT 219 - Calculus III 4.00
This course is a study of vector algebra and derivatives in two and three dimensions, parametric equations, partial derivatives, three-dimensional graphing, multiple integration, line integrals and Green’s Theorem. Emphasis is placed on theory, applications, and computer use throughout. Prerequisite: MAT 217

MAT 772 - Applied Math 3.00
This course covers all fundamental arithmetic concepts and more routine algebraic operations. Arithmetic concepts are fractions, percentages, graphing, decimals, ratios, word problems, metrics, areas, and volumes. Algebraic work includes solving simpler equations, proportions, and formula rearrangement.

MAT 777 - Applied Algebra/Trigonometry 3.00
This course is designed to provide students with basic algebraic and trigonometric concepts. Topics include geometric solids, factoring, linear and quadratic equations, logarithms, systems of equations, and right angle trigonometry. Career applications of these concepts are included. Prerequisite: MAT 772

MAT 917 - Experimental Course 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

MAT 949 - Special Topics 1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

MFG – MANUFACTURING

MFG 125 - Intro to Automation 4.00
This course is designed for the student with little or no knowledge of fluid power, electrical control and automation. Topics include basic principles, components of fluid power and basic design of electrical controls/plc's as it applies to automation/robotics in industry.

MFG 141 - Geometric Dimensioning and Tolerancing 2.00
This course introduces geometric dimensioning and tolerancing, an element of engineering drawing that includes the geometry, critical functional relationships, and tolerances allowed for the proper function of a part. Prerequisite: DRF 113

MFG 148 - Manufacturing Design 4.00
This course provides students a fundamental understanding of design and construction of special tools. Students design and/or build tooling while completing a hands-on project. Prerequisite: MFG 322, MAT 772

MFG 206 - Manufacturing Processes I 3.00
This course is intended to provide basic knowledge and background covering manufacturing systems, properties and production of metals, basic machine tool elements and basic machining processes. An understanding of safety when working with machine operations will be emphasized.

MFG 286 - Job Planning, Benchwork and Layout (NIMS) 3.00
This course includes the basics of hand tools, understanding drawings, manual machines and layout. It focuses on interpretation of basic GD&T feature control frames, and emphasizes teamwork, critical thinking and problem solving through hands-on experience and practical applications. This course aligns with the NIMS (National Institute of Metalworking Skills) standards.

MFG 322 - Introduction to CAD/CAM 3.00
This course is an introduction to computer-aided drafting and computer aided manufacturing. The student will learn basic CAD/CAM software commands and processes and progress to specific command sequence operations related to manufacturing. Prerequisite: MFG 206

MFG 465 - Predictive Maintenance - Machine Vibration and Motors 2.00
This course is designed to provide knowledge and skills to work in the area of preventative and predictive maintenance. Subjects to be covered include vibration analysis, oil analysis, and vibration of induction motors.

MFG 466 - Predictive Maintenance - Thermography and Ultrasound 2.00
This course is designed to provide knowledge and skills working in the area of prevention and predictive maintenance. Subjects to be covered include thermography and ultrasounds.
MFG 542 - Machine Design 3.00
This course is used to prepare the student for basic machine design using common materials such as fasteners, bearings and gears. The student will have the knowledge to prepare complete and accurate mechanical drive assemblies. The design process is explored and cost estimating is introduced. Corequisite: MAT 772

MFG 917 - Experimental Course 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

MFG 949 - Special Topics 1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

MGT – MANAGEMENT

MGT 101 - Principles of Management 3.00
This course introduces students to the role of planning, organizing, staffing, directing, and controlling in formal and informal organizations of all sizes. This course presents theoretical bases and real world examples of implementation.

MGT 130 - Principles of Supervision 3.00
This course examines first-line supervisors’ responsibilities and discusses aspects of leadership. Students learn practical approaches to dealing with supervisor problems, explore the role of the supervisor in a constantly changing environment, and examine models of effective planning.

MGT 170 - Human Resource Management 3.00
This course is a combination of theoretical and practical approaches to human resource management. Topics include job design, employee selection, employee development, employee appraisal, and employee termination. Additionally, it explores federal statutes relating to EEO, Affirmative Action, OSHA, and labor unions and also addresses employee compensation and fringe benefit packages.

MGT 174 - Training and Employee Development 3.00
This course enables students to understand the process of developing human resources by providing a thorough analysis of training as it relates to organizational objectives and strategies. It emphasizes the conceptual and practical value of developing training programs, with practical examples provided for both large and small organizations.

MGT 177 - Staffing 3.00
This course is based on a comprehensive staffing model that focuses on how to achieve a successful person/job and person/organization match. Components of the model include external influences (economic conditions, labor markets, unions, laws and regulations), staffing support systems (staffing strategy and planning, job analysis, measurement), major staffing activities, (recruitment, selection, employment), and staffing system management. Major federal regulations pertaining to EEO/AA are contained in separate appendices.

MGT 178 - Employment Law 3.00
This course offers an overview of the principles of employment law and practices. It looks at the legal considerations that occur when an employer-employee relationship is established, and permissible activities in handling personnel problems are covered. Significant Supreme Court used as resources.

MGT 200 - Managing Diversity 3.00
This course identifies the strategies and tools necessary to meet the challenges of a multi-cultural workplace. Students explore behaviors that block organizational and individual effectiveness and will become more aware of their own viewpoints and stereotypes. Workplace cultures explored include but are not limited to a variety of ethnic groups, men and women, gay persons, persons with disabilities, and younger/older workers.

MGT 917 - Experimental Course 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

MGT 938 - On-the-Job Training 2.00
This course provides on-the-job experience and practical application of the competencies learned in program coursework. It involves a coordinated effort among the student, WITCC faculty member, and a work supervisor in a business for experiential activities. Prerequisites: Permission of instructor, 2.0 cumulative GPA and a C (2.0) or better in core courses as defined by the program advisor.

MGT 949 - Special Topics 1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

MGT 975 - Service Learning 1.00
This course integrates service in the community with practical application of the competencies learned in program coursework. It involves a coordinated effort among the student, WITCC faculty member, and a work supervisor in a non-profit community organization that will meet identified community needs and advance the students’ understanding of course related content. Permission of Instructor, Cumulative 2.0 GPA, C (2.0) or better in core courses as defined by the program advisor.

MKT – MARKETING

MKT 110 - Principles of Marketing 3.00
This course covers consumer and organizational buying behavior, targeting market opportunities, developing and managing new products, marketing channels, logistics, and strategic market planning and implementation. This course examines marketing from the consumers’ and organizational perspective.

MKT 140 - Principles of Selling 3.00
This course introduces the basic fundamentals of selling. The significant role of selling in our economy is stressed. Effective methods and procedures dealing with how to sell ethically and how to build long-term relationships with customers will be covered.

MKT 150 - Principles of Advertising 3.00
This course covers the functions of advertising including advertising objectives, targeting the advertising to the identified consumer, designing the complete campaign strategy, budgeting the campaign, selecting the media, scheduling the campaign, and writing headlines and copy. MKT-110 Principles of Marketing is recommended prior to this course.

MKT 160 - Principles of Retailing 3.00
This course gives students a basic understanding of merchandising, retail formats, retail locations, fashion merchandising, merchandise resources, productivity, merchandise accounting, inventory valuation, pricing, planning sales and inventory, purchase terms, store layout and merchandise presentation will be covered.

MKT 917 - Experimental Course 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.
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<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>MMS 101</td>
<td>Mass Media</td>
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<tr>
<td>MMS 131</td>
<td>News Reporting</td>
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<tr>
<td>MMS 132</td>
<td>Writing for the Mass Media</td>
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<td>MMS 142</td>
<td>Media Literacy</td>
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<td>MMS 156</td>
<td>Media Ethics</td>
<td>2.00</td>
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<td>MMS 157</td>
<td>Newscast Structure and Producing</td>
<td>3.00</td>
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<tr>
<td>MMS 161</td>
<td>Broadcasting Practicum I</td>
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<td>MMS 162</td>
<td>Broadcasting Practicum II</td>
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<td>Broadcasting Practicum III</td>
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<td>MMS 265</td>
<td>Mass Communications Law</td>
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<td>MMS 917</td>
<td>Experimental Course</td>
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<td>MMS 932</td>
<td>Internship</td>
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<td>MMS 941</td>
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<td>MMS 949</td>
<td>Special Topics</td>
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**MOT – MOTORCYCLE TECHNOLOGY**

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<tr>
<th>Course Code</th>
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<th>Credits</th>
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<tr>
<td>MOT 104</td>
<td>Power Sports Shop Safety</td>
<td>1.00</td>
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<tr>
<td>MOT 109</td>
<td>Fundamentals of Small Engines</td>
<td>3.00</td>
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<tr>
<td>MOT 110</td>
<td>Air-Cooled V-twin Engines</td>
<td>3.00</td>
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<tr>
<td>MOT 123</td>
<td>Wheels and Tires</td>
<td>2.00</td>
</tr>
<tr>
<td>MOT 127</td>
<td>Suspension and Brake Systems</td>
<td>4.00</td>
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</tbody>
</table>
MOT 128 - Motorcycle Engines Two and Four Stroke  2.00
This course presents the basic operation of 2 & 4 stroke engines with an emphasis on identification and functionality of 2 & 4 stroke engine components and how these components are interrelated as well as various designs of 2 & 4 stroke engine construction. Students learn proper service manual usage, how to research parts, and utilize other resource materials for locating manufacturers’ specifications. In addition, students learn cooling and lubrication systems theory of operation, construction and design is introduced. Prerequisite: MOT 104, Corequisite: MOT 129

MOT 129 - Motorcycle Engines Two and Four Stroke Lab  2.00
This course prepares students to disassemble, inspect, and reassemble 2 & 4 stroke engines. Students learn proper parts storage, inspection, and diagnosis during disassembly as well as making precision measurements. Lab experience also includes more in-depth, hands on experiences of the timing, torque procedures and sealing methods used during re-assembly of 2 & 4 stroke engines, lubrication and cooling systems removal, and installation and inspection procedures. Prerequisite: MOT 128, MOT 104

MOT 130 - Engine Overhaul/Repair 3.00
This course focuses on the overhaul and repair of the mechanical system of the engine. Lab activities include the diagnosis and repair or replacement of worn components. Students are introduced to specialty tools used for engine overhauling. Testing equipment and procedures are utilized to identify engine faults or potential failures related to carburetors, valves, compression and cylinders. Prerequisite: MOT 104, MOT 128, MOT 129

MOT 132 - Motorcycle & ATV Electrical Systems Diagnostics 2.00
This course allows students to continue improving their diagnostics and repair skills on Motorcycle/ATV electrical systems. Students locate and repair electrical related problems. Computer diagnostics and specialty test equipment are introduced. Prerequisite: MOT 205

MOT 133 - Powersports Electrical Systems 3.00
This course introduces students to the basics of electricity used on small engines, motorcycles and ATVs, including an understanding of electrical components related to these machines. Students learn to use test equipment and read and perform basic diagnosis using an electrical schematic. Prerequisite: MOT 104

MOT 134 - Fuel and Ignition Systems 3.00
This course provides students with an overview of the entire fuel and ignition system essential in the operation of a motorcycle/ATV engine. Students identify components common to most engine carburetors and ignition systems. Common ignition component and fuel system failures are emphasized to introduce students to basic diagnostics. Corequisite: MOT 104

MOT 135 - Motorcycle Set-up and Delivery 1.00
This course prepares students for set-up and delivery procedures used in dealerships. It includes proper procedures for inspecting motorcycles and ATVs following first time assembly and machine setup. Proper use of manufacturers PDI (pre-delivery inspection) forms and documentation methods will also be demonstrated. Prerequisite: MOT 104

MOT 137 - Transmissions and Drive Systems I 2.00
This course focuses on the fundamentals of most Metric transmission and drive systems contained in a common engine case. Students learn the theory of manual and automatic drive systems and transmissions in motorcycles and ATVs. Student learning includes maintenance, repair, replacement and adjustment of clutches, primary and final drive components and systems. Automatic and manual transmissions are disassembled, inspected and reassembled. Prerequisite: MOT 129, MOT 104

MOT 138 - Transmission and Drive Systems II 2.00
This course is a continuation of manual and automatic drive systems and transmissions for motorcycles and ATVs. V-Twin and ATV transmissions and clutches will also be introduced. Students further develop their skills in inspecting, diagnosing and repairing drive systems and transmissions. Labs include the student becoming familiar with the variations and differences of individual makes of motorcycles and ATVs. Prerequisite: MOT 137

MOT 204 - ATV & UTV Powersports Vehicles 4.00
This course allows students to become proficient in maintaining and repairing All-Terrain Vehicles (ATV) and Utility Terrain Vehicles (UTV) systems. Students learn to align, adjust and repair suspension, engine configurations, chassis designs, drive and steering systems. Industry application and safety is also introduced. Prerequisite: MOT 104

MOT 205 - Advanced Diagnosis & Troubleshooting 3.00
This course allows students to continue improving their diagnostic and repair skills on Motorcycle/ATV vehicles. Students perform problem solving diagnostics that effect overall machine performance and handling. Procedures for verifying customer complaints will be demonstrated and practiced. Computer diagnostics and use of specialty test equipment is introduced. Dynamometer analysis will also be introduced. Prerequisite: MOT 128, MOT 133, MOT 104

MOT 206 - Motorcycle Powersports Capstone 4.00
This course focuses on the review of the top ten (10) entry level skills of a Motorcycle and Powersports Mechanic. Topics will include powersports tire service, engine diagnostics, fluid service, drive systems service, tune up by manufacturers specifications, suspension service, brake service, electrical diagnostics, and fuel systems service. Prerequisite: MOT 130, MOT 132, MOT 255

MOT 212 - Motorcycle & ATV Tune Up/Maintenance 3.00
This course allows students to combine electrical and mechanical skills they have learned to meet the required maintenance schedules demanded by the manufacturers. Students perform tune-ups and service procedures related to maintaining the entire motorcycle or ATV’s engine, electrical system, and fuel system. Chassis, wheels and brake system maintenance requirements will also be performed. Prerequisite: MOT 128, MOT 133, MOT 104

MOT 205 - Advanced Diagnosis & Troubleshooting 3.00
This course allows students to continue improving their diagnostic and repair skills on Motorcycle/ATV vehicles. Students perform problem solving diagnostics that effect overall machine performance and handling. Procedures for verifying customer complaints will be demonstrated and practiced. Computer diagnostics and use of specialty test equipment is introduced. Dynamometer analysis will also be introduced. Prerequisite: MOT 128, MOT 133, MOT 104

MOT 255 - Performance Engine Tuning 2.00
This course allows students to discover specialized engine performance for engines related to high-performance or competition machines. An understanding of safe engine modifications and limitations is emphasized. Prerequisite: MOT 104

MOT 259 - Shop Management 2.00
This course introduces students to the essential elements of managing a motorcycle/ATV business including inventory, ordering, scheduling, customer service, safety and basic accounting practices that are specifically related to the motorcycle powersports industry. Hiring, managing and time tracking of employee performance is also covered.

MOT 947 - Practicum 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

MOT 917 - Experimental Course 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.
MOT 949 - Special Topics  1.00-4.00
In this course students gain mock, on-the-job, experience to better prepare themselves for the rigorous responsibilities required of a technician. There are opportunities for students to engage in practical application of the competencies developed in the first year of the Motorcycle/Powersports Technology program. Pre-requisites: Completion of the first year of the Western Iowa Tech Motorcycle/Powersports Program and instructor permission.

MUA – APPLIED MUSIC

MUA 101 - Applied Voice  1.00
This course offers private voice lessons for singers with a variety of vocal background and experience. It includes the study of vocal fundamentals, survey of solo vocal literature, and preparation for performance of solo vocal literature.

MUA 102 - Applied Voice II  1.00
This course offers private voice lessons for singers with a variety of vocal background and experience. It includes the study of vocal fundamentals, survey of solo vocal literature, and preparation for performance of solo vocal literature. Instructor permission is required. Prerequisite: MUA 101

MUA 103 - Applied Voice III  1.00
This course offers private voice lessons for singers with a variety of vocal background and experience. It includes the study of vocal fundamentals, survey of solo vocal literature, and preparation for performance of solo vocal literature. Instructor permission is required. Prerequisite: MUA 102

MUA 120 - Applied Piano  1.00
This course offers private piano lessons for musicians with varied background and experience. It includes the study of keyboard fundamentals, survey of solo piano literature, and preparation for performance of solo piano literature. For music majors, the course also includes the study of skills necessary to accompany students and play choral scores. This course may be repeated for credit. Instructor permission required

MUA 124 - Applied Guitar  1.00
This course offers private lessons in guitar for musicians with varied background and experience. It includes the study of guitar fundamentals, survey of solo guitar literature, and preparation for performance of solo guitar literature. This course may be repeated for credit. Instructor permission required

MUA 126 - Applied Strings  1.00
This course offers private lessons in strings for musicians with varied background and experience. It includes the study of string fundamentals, survey of solo string literature, and preparation for performance of solo string literature. This course may be repeated for credit. Instructor permission required

MUA 143 - Applied Brass  1.00
This course offers private lessons in brass for musicians with varied background and experience. It includes the study of brass fundamentals, survey of solo brass literature, and preparation for performance of solo brass literature. This course may be repeated for credit. Instructor permission required

MUA 170 - Applied Woodwinds  1.00
This course offers private lessons in woodwinds for musicians with varied background and experience. It includes the study of woodwind fundamentals, survey of solo percussion literature, and preparation for performance of solo woodwind literature. This course may be repeated for credit. Instructor permission required

MUA 174 - Wind Instrument Playing Techniques I  1.00
This course provides instruction in basic playing techniques for wind instruments and the use of play-testing as a diagnostic tool. The course introduces students to basic embouchure, hand position, and characteristic tone quality of wind instruments, and proceeds to build technique and facility on the instrument. Woodwind, brass, clarinet and flute instruments will be covered.

MUA 175 - Wind Instrument Playing Techniques II  1.00
This course provides instruction in basic playing techniques for wind instruments and the use of play-testing as a diagnostic tool. The course introduces students to basic embouchure, hand position, and characteristic tone quality of wind instruments, and proceeds to build technique and facility on the instrument. Woodwind, brass and saxophone instruments will be covered.

MUA 176 - Wind Instrument Playing Techniques III  1.00
This course provides instruction in basic playing techniques for wind instruments and the use of play-testing as a diagnostic tool. The course introduces students to basic embouchure, hand position, and characteristic tone quality of wind instruments, and proceeds to build technique and facility on the instrument. Double reeds, harmony woodwinds and oboes will be covered.

MUA 180 - Applied Percussion  1.00
This course offers private lessons in percussion for musicians with varied background and experience. It includes the study of percussion fundamentals, survey of solo percussion literature, and preparation for performance of solo percussion literature. This course may be repeated for credit. Instructor permission required

MUA 201 - Applied Voice IV  1.00
This course offers private voice lessons for singers with a variety of vocal background and experience. It includes the study of vocal fundamentals, survey of solo vocal literature, and preparation for performance of solo vocal literature. Instructor permission is required. Prerequisite: MUA 103

MUA 917 - Experimental Course  1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

MUA 949 - Special Topics  1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

MUS – GENERAL MUSIC

MUS 100 - Music Appreciation  3.00
A general course designed to make the student more aware of musical form, media, genres, musical periods, and the essential role of music in life and culture. Emphasizes the development of tools for intelligent listening and appreciation.

MUS 102 - Music Fundamentals  3.00
This course introduces the basic materials of music, including musical notation, melody, harmony, rhythm, major and minor scales and keys, chord construction, composition and transposition. It is intended for students with strong interest but limited background in music theory.

MUS 115 - Music Theory I  2.00
The course introduces the basic materials of music, including musical notation and the basic elements of music including melody, harmony, rhythm, texture, keys, major and minor scale structures, chord construction, and composition. This class is intended for students with strong interest but limited background in music theory. Corequisite: MUS 125
This course is a continuation of Music Theory I which includes the knowledge base of notation, melody, harmony, rhythm, scales, keys, texture and chord construction. This course expands that base to include music composition and analysis. The program of study also includes melodic counterpoint and harmonic construction, with an emphasis in building student understanding of musical form. This class is intended for students with a strong interest and background in music theory. Prerequisite: MUS 115, Corequisite: MUS 126

MUS 117 - Music Theory III 2.00
The class builds upon concepts mastered in Theory I and II. Compositional skills are strengthened through study of voice leading, different types of motion, common chord progressions, chord resolutions and simple counterpoint. Students will analyze standard compositional forms of different historical periods and will utilize them in their own compositions. This class is intended for students with strong music theory background. Prerequisite: MUS 116, Corequisite: MUS 126

MUS 125 - Ear Training/Sight Singing 2.00
This course develops the ability to recognize and note simple intervals, rhythms, melodies and chord progressions. Sight-singing skills are strengthened using the sol-feggio method. Basic piano keyboard skills are acquired. Music majors must take this course in conjunction with MUS-115. Corequisite: MUS 125, Corequisite: MUS 116

MUS 126 - Ear Training/Sight Singing II 2.00
This course is a continuation of MUS 125 which has developed the student’s ability to recognize and note simple intervals, rhythms, melodies and chord progressions and to sight-sing basic melodies. This class introduces larger intervals, compound meter, II-V-I chord progressions, and sight-singing of melodies containing intervals up to an octave. Accidental s are introduced in sight-singing. Prerequisite: MUS 125, Corequisite: MUS 116

MUS 128 - Music Notation 2.00
This course prepares students to write musical sentences, chords, songs, and lyrics utilizing composition software. Students orchestrate music for a variety of different instruments, as well as choral and orchestral scores. This course introduces industry standards for music publishing.

MUS 140 - Concert Choir 1.00
This course is designed for singers with a variety of vocal experience and backgrounds. It includes rehearsal and performance of music of diverse styles, textures, musical periods, and genres. Performances will occur on the WITCC campus and throughout the Siouxland community.

MUS 141 - Concert Choir II 1.00
This course is designed for singers with a variety of vocal experience and backgrounds. It includes rehearsal and performance of music of diverse styles, textures, musical periods, and genres. Performances will occur on the WITCC campus and throughout the Siouxland community. Prerequisite: MUS 140

MUS 142 - Concert Choir III 1.00
This course is designed for singers with a variety of vocal experience and backgrounds. It includes rehearsal and performance of music of diverse styles, textures, musical periods, and genres. Performances will occur on the WITCC campus and throughout the Siouxland community. Prerequisite: MUS 141

MUS 150 - Chamber Ensemble 1.00
This course is an advanced choral ensemble which provides advanced instruction in vocal production techniques, advanced music theory and advanced sight-singing skills. Students specialize in the performance of a cappella and chamber music from the Middle Ages to the Twentieth Century. The students perform in concerts throughout the year, requiring some out of class rehearsals and concerts, including after school evenings, and weekends. Each member of this class is expected to attend weekly sectionals and work independently to improve their voices. Choir members are also encouraged to study privately. Students must be available to tour.

This course may be repeated for credit. Corequisite: MUS 140, MUS 141, MUS 142, Audition, instructor consent required.

MUS 189 - Jazz Combo 1.00
This course provides the opportunity for jazz instrumentalists to study and perform the art of jazz in a small-ensemble setting. The course content includes learning standard jazz combo literature and improvisation techniques. Jazz combos will be selected through audition, and prior experience on a band instrument commonly used in jazz is needed. This course may be repeated for credit.

MUS 199 - Music History 3.00
This course provides historical background necessary to apply progressively theoretical aspects of music. Included in this course are music elements such as form, media, genre, style, characteristics of various musical time frames, and the essential role of music in life and culture. Prerequisite: MUS 115

MUS 202 - World Music 3.00
World Music provides students with the opportunity to study the music of diverse non-Western cultures. The course relates the music of a region to its history and cultural identity. Designed for the general student as well as music majors, the course will use a hands-on approach to explore the basic elements of global music and the ways that music impacts the culture and traditions of a country.

MUS 215 - Music Theory IV 2.00
This course continues to build upon the knowledge developed in Theory III. The course utilizes elements of music which include: musical notation, melody, harmony, rhythm, texture, keys, major and minor scales structures, modes, chord construction, composition, and transposition. All elements will be related to relevant historical periods. Students will strengthen knowledge of musical techniques and concepts as they appear in each of the historical eras: Medieval, Renaissance, Baroque, Classical, Romantic, 20th Century and Jazz and Modern Music. This class is intended for students with strong music theory background. Prerequisite: MUS 117, Corequisite: MUS 226

MUS 225 - Ear Training/Sight Singing III 2.00
This course is a continuation of Ear Training and Sight Singing I and II. Transcription of melodies will progress from one- and two-part dictations to 4-part harmonic dictation. Aural recognition of common chord progressions will be developed, as well as four-part sight-singing in various compositional styles. Rhythm dictation will stress cut-time, compound meters, and asymmetrical meters. Sol-feggio studies will expand to include reading choral octaves in syllables. Prerequisite: MUS 126, Corequisite: MUS 117

MUS 226 - Ear Training/Sight Singing IV 2.00
This course is a continuation of Ear Training and Sight Singing I, II and III. Harmonic dictation will expand from three-chord sequences to seven chords. Aural recognition of more complex chord progressions will be developed, as well as independent four-part sight-singing in compositional styles which include accidentals and mixed meters. Excerpts from standard literature will be incorporated into both dictation and sight-singing. Rhythmic dictation will expand to include mixed meters. Students will lead sol-feggio study exercises, including modes. Students will choose a recording to transcribe in all aspects. Prerequisite: MUS 225, Corequisite: MUS 215

MUS 240 - Concert Choir IV 1.00
This course is designed for singers with a variety of vocal experience and backgrounds. It includes rehearsal and performance of music of diverse styles, textures, musical periods, and genres. Performances will occur on the WITCC campus and throughout the Siouxland community. Prerequisite: MUS 142

MUS 267 - Pro Tools 3.00
This course focuses on the skills needed to function within the digital audio workstation environment at a basic level. The goal of this course is to help learners start working on their own projects in computer recording. Students should have a familiarity with basic computer skills and musical knowledge to be successful in this course. Prerequisite: MUS 285
MUS 273 - Band 1.00
This course is an instrumental ensemble which provides instruction in playing techniques, music theory, and sight reading skills. Students will perform music from a variety of genres including Jazz and Blues. The students perform in concerts throughout the year, requiring some out of class rehearsals and concerts, including after school evenings, and possibly weekends. Band members are also encouraged to study privately through WITCC’s Applied Lessons. This course may be repeated for credit.

MUS 285 - Audio Production & Equipment I 3.00
This course includes the theory and application of analog audio production and signal flow, including analog tape editing and recording techniques. It addresses effective sound reinforcement, achieved through the use of microphones, mixers, signal processing, power amps, and speakers. Students are introduced to the audio components and equipment and given practical applications in analog production and sound system operation. Prerequisite: MUS 291

MUS 287 - Audio Production & Equipment II 3.00
This course is a continuation of MUS 285 Audio Production & Equipment I and introduces advanced signal processing techniques, digital delays and modulation effects, equalizers, and reverbs in the context of building a professional mix. Students utilize applications of digital audio recording and editing, emphasizing mixing techniques of Pro Tools systems. Prerequisite: MUS 267, MUS 285

MUS 288 - Topics in the Modern Music Industry 2.00
This course provides the opportunity for students to examine diverse issues such as copyright, publishing, hearing loss, digital downloads, internet music culture, the Volume War, the analog vs. digital debate, the importance of sound quality in audio productions, the future of music/audio production and more, as they relate to the average listener/consumer, musicians, and audio professionals alike.

MUS 289 - System Assembly & Maintenance 3.00
This course reviews basic electronics and sound principles as well as set-up and signal flow of consoles, calibration, and operation of recording equipment. Topics include studio layout and signal routing, equipment interface, grounding and maintenance. Students are provided hands-on application of systems assembly and maintenance as well as situational experience in troubleshooting techniques. Instructor consent required.

MUS 291 - Audio Principles and Theory 3.00
This course examines the fundamentals of sound, and the history, theory and techniques of audio production. Students develop critical listening skills and analytical abilities to engage in effective audio manipulation. Students identify, measure, and manipulate sound and frequencies, and apply sound damping techniques. Students learn the fundamentals of how to capture, edit, mix and master audio using a variety of analog and digital principles and equipment. Prerequisite: ELE 101

MUS 301 - Live Sound Production 3.00
This course prepares students for live sound production. Through instruction and remote live recording session experience outside of the traditional recording studio, students learn and apply the fundamentals of running remote multi-track recording sessions in indoor and outdoor venues. Techniques to be covered include stage set-ups, stylistically dependent instrument and vocal setups, microphone choice and placement, speaker construction and power-matching of sound reinforcement equipment, tracking a remote recording session, dealing with weather and other remote location concerns, mixing while multi-track recording, session protocol, and communication and client relations skills. Instructor consent required. Prerequisite: MUS 285

MUS 302 - Studio Production in Mass Communication 3.00
This course addresses the fundamentals of architectural acoustics and introduces students to the most current types and usages of multimedia as they relate to audio production. Emphasis is placed on the application of recording techniques and equipment in varied modes of communication such as wired and wireless applications, and audio and video conferencing. Students learn to adapt to a variety of acoustical settings and venues, and demonstrate intuitive and creative use of professional skills and tools used in the entertainment, educational, and professional world. Prerequisite: MUS 285

MUS 316 - Audio Engineering Electronics 2.00
This course presents basic electronic principles such as voltage, resistance (impedance), DC and AC current, and power. Audio signals in series, parallel, and complex circuits will be measured and compared. Circuits that create, amplify, attenuate, and distribute audio signals will be explored in the context of live sound production. Students will have an opportunity to improve soldering and instrumentation skills.

MUS 336 - Advanced Audio Engineering Electronics 2.00
This course is a continuation of MUS 316. Students learn how to maintain, setup and make routine repairs to electric amplifiers and other audio system components. Students work on individual projects using skills needed in the Audio Engineering Field. A basic understanding of electronics and audio engineering terminology is recommended. Prerequisite: MUS 316

MUS 420 - Audio Seminar I 1.00
This course requires students to attend specific venues in order to observe and learn about the world of audio, studio productions, live events, current music technologies and music production as they are implemented for music, film, television, and interactive media. Instructor consent required. Prerequisite: ELE 101

MUS 421 - Audio Seminar II 1.00
This course requires students to attend specific venues in order to observe and learn about the world of audio, studio productions, live events, current music technologies and music production as they are implemented for music, film, television, and interactive media. Instructor consent required.

MUS 431 - Audio Practicum I 1.00
This course will allow students to apply learned skills by producing audio projects under faculty supervision. Prerequisite: MUS 285

MUS 432 - Audio Practicum II 1.00
This course will allow students to apply learned skills by producing more challenging video projects with less faculty supervision while maintaining high quality outcomes. Prerequisite: MUS 431

MUS 917 - Experimental Course 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

MUS 932 - Internship 3.00
This course provides on-the-job experience on campus or in the industry, giving the student experience and practical application of the competencies learned in the degree program. The internship is coordinated by the college instructor and supervised by an industry professional at the work site. Prerequisite: Permission of instructor, 2.0 cumulative GPA and a C (2.0) or better in core courses as defined by the program advisor. Students meet once a week to discuss their experiences and ongoing progress with their fellow class members, and to measure progress with the instructor.

MUS 947 - Practicum 2.00
This course is designed to allow students to job shadow and/or work in a faculty supervised activity with well-defined expectations, activities and outcomes, applying the knowledge and skills gained in the program of study. This is a coordinated effort between the student, faculty members, and the work supervisor involving evaluations and assessment. Instructor permission required.

MUS 949 - Special Topics 1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

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800.352.4649 or www.witcc.edu
NET – COMPUTER NETWORKING

NET 121 - Fundamentals of Computers and Networks 3.00
In this course, students will learn the architecture of computer systems. The course focuses on the operational means by which computers store, process, and interact with other computers and devices. This is a combined lecture and lab course to instruct students on how computers and networks work on hardware and software level.

NET 155 - Introduction to Wireless Networks 3.00
This course provides a hands-on guide to planning, designing, installing and configuring wireless LANs that prepares students for the Certified Wireless Network Administrator (CWNA) certification. The text used offers in-depth coverage of wireless networks with extensive step-by-step coverage of IEEE 802.11b/a/g/pre-n implementation, design, security, and troubleshooting. Material is reinforced with hands-on projects at the end of each chapter from two of the principle wireless LAN vendors, Cisco and Linksys. Prerequisite: NET 161, NET 162

NET 161 - IT Essentials I: PC Hardware and Software 4.00
This course covers the fundamentals of computer hardware and software. Fundamentals covered include computer technology, networking, security, and communication skills. This is a combined lecture and lab course designed for students seeking career-oriented, entry-level hardware and software positions. This course also prepares students for the CompTia A+ certification exams.

NET 162 - IT Essentials II: Advanced PC Hardware and Software 3.00
This course covers advanced computer hardware and software concepts and builds on the fundamental skills covered in NET 161 IT Essentials I with more comprehensive labs and troubleshooting scenarios. It is a combined lecture and lab course designed for students seeking career-oriented, entry-level hardware and software positions. This course also prepares students for the CompTia A+ certification exams. Prerequisite: NET 161

NET 170 - Configuring Windows 4.00
This course provides students with the skills necessary to master configuration and support for Windows 8 computers, devices, users and associated network and security resources. Emphasis is placed on the client-side of networking.

NET 171 - Installing & Configuring Windows Server 4.00
This course is the first in a series of three that provides students with the skills and knowledge necessary to implement a core Windows Server 2012 Infrastructure into an existing enterprise environment. This course focuses on mastery of core services such as Active Directory and networking services. Prerequisite: NET 170

NET 172 - Administering Windows Server 4.00
This course is the second in a series of three that teaches the fundamentals of deploying, supporting, and administering current Microsoft Windows systems. It is also designed to support individuals preparing to take the current Administering Windows Server exam. Prerequisite: NET 171

NET 173 - Configuring Advanced Windows Server 4.00
This course is the third in a series that provides the fundamentals of administering Windows Server. It is also designed to support individuals preparing to take the Configuring Advanced Windows Server Services exam. Prerequisite: NET 172

NET 197 - Intermediate Networking 3.00
In this course, students will learn the fundamentals of local area and wide area networking, define networks with the OSI Model and understand wired and wireless networks. In addition, students will also understand Internet Protocol, implementing TCP/IP, and working with networking services. The course focuses on non brand specific products and implementations. After taking this course, students will be better prepared for CompTia’s Network+ Exam. Prerequisite: NET 121

NET 216 - Cisco CCNA Security 3.00
This course equips students with the knowledge and skills needed to prepare for entry-level security specialists careers. This course is a hands-on, career-oriented e-learning solution that emphasizes practical experience. It is a blended curriculum with both online and classroom learning. CCNA Security aims to develop an in-depth understanding of network security principles as well as the tools and configurations required to secure a network. Prerequisite: NET 220

NET 217 - CCNA Exploration Network Fundamentals 3.00
This course introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. Network Fundamentals is the first of 4 semester courses necessary for CCNA (Cisco Certification Network Association) certification. It uses the OSI and TCP layered models to examine the nature and roles of protocols and services at the application, network, data link, and physical layers. It introduces the principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations to provide a foundation for the curriculum. Labs use a “model Internet” to allow students to analyze real data without affecting production networks. Packet Tracer (PT) activities help students analyze protocol and network operation and build small networks in a simulated environment. At the end of the course, students build simple LAN topologies by applying basic principles of cabling; performing basic configurations of network devices, including routers and switches; and implementing IP addressing schemes. Prerequisite: NET 161

NET 218 - CCNA Exploring Routing Concepts 3.00
This CCNA (Cisco Certification Network Association) course describes the architecture, components, and operation of routers, and explains the principles of routing and routing protocols. Students analyze, configure, verify, and troubleshoot the primary routing protocols RIPV1, RIPV2, EIGRP, and OSPF. By the end of this course, students will be able to recognize and correct common routing issues and problems. The students are prepared through a basic procedural lab and then presented with basic configuration, implementation, and troubleshooting labs. Packet Tracer (PT) activities reinforce new concepts, and allow students to model and analyze routing processes that may be difficult to visualize or understand. Prerequisite: NET 217

NET 219 - CCNA Exploration Switching and Wireless 3.00
This CCNA (Cisco Certification Network Association) course provides a comprehensive, theoretical, and practical approach to learning the technologies and protocols needed to design and implement a converged switched network. Students learn about the hierarchical network design model and how to select devices for each layer. The course explains how to configure a switch for basic functionality and how to implement Virtual LANS, VTP, and Inter-VLAN routing in a converged network. The different implementations of Spanning Tree Protocol in a converged network are presented, and students develop the knowledge and skills necessary to implement a WLAN in a small-to-medium network. Prerequisite: NET 218

NET 220 - CCNA Exploration Accessing the WAN 3.00
This course presents the WAN technologies and network services required by converged applications in enterprise networks. The course uses the Cisco Network Architecture to introduce integrated network services and explains how to select the appropriate devices and technologies to meet network requirements. Students learn how to implement and configure common data link protocols and how to apply WAN security concepts, principles of traffic, access control, and addressing services. Finally, students learn how to detect, troubleshoot, and correct common enterprise network implementation issues. After successfully completing the four CCNA Exploration courses, students are qualified to take the Cisco Certified Network Associate Exam (CCNA). Prerequisite: NET 217, NET 218, NET 219

NET 351 - Python for Cyber Security Professionals 3.00
This course introduces the student to the Python language. Students will learn to automate tasks, create simple programs, and graphical user interfaces. Topics include Python language components, control flow constructs, strings, I/O, collections, classes, modules, and regular expressions.
NET 423 - Securing a Linux Environment I 3.00
This course introduces basic Unix/Linux commands and usage. It focuses on securing and managing an operating system environment in Linux. Students learn how to secure the basic operating system, secure connections to the hosts and test the overall security of the Linux box. Prerequisite: NET 162, NET 424

NET 424 - Securing a Linux Environment II 3.00
This course takes the concepts and knowledge learned in Securing a Linux Environment I and applies them to common applications run on Unix/Linux operating systems. It focuses on managing the risks of running Linux hosts and applications and methods to minimize those risks. Students learn how to test the overall security of these applications and apply proper security measures. Prerequisite: NET 423, NET 161

NET 478 - Information Storage and Management 3.00
This course provides students with the background to learn how to manage advanced storage systems, protocols, and architectures, including Storage Area Networks (SAN), Network-Attached Storage (NAS), Fibre Channel Networks, Internet Protocol SANs (IPSAN), SCSI, and Content-Addressable Storage (CAS). Prerequisite: NET 172, NET 220

NET 501 - Basic Linux Operating System 3.00
This course provides students with the instruction and hands-on practice in the basics of operation, installation, and configuration of the Linux operating system and its file system. This is the first of two courses that provide a foundation for the student preparing for the Linux + professional certification exam. Prerequisite: NET 162

NET 502 - Advanced Linux Operating System 3.00
This course will provide the student with instruction and hands-on practice in the basics of system administration in a network environment. The laboratory systems will enable students to practice with multiple Linux systems in a virtual environment. This is the second of two courses that will help the student prepare for the Linux + professional certification exam. Prerequisite: NET 501

NET 536 - Microsoft Exchange Server 2007 MCTS 3.00
This course provides students with instruction and hands-on practice in the skills required to install and configure Microsoft’s current Exchange Server. The laboratory systems enable students to learn by doing in live virtual environments. This course helps prepare students for the current MCTS certification exam. Prerequisite: NET 171

NET 612 - Fundamentals of Network Security 3.00
This course is a combined lab and lecture course designed to provide students with a fundamental understanding of network security principles and implementation. Students learn the technologies and principles involved in creating a secure computer networking environment. Students learn about authentication, types of attacks and malicious code, threats and countermeasures for e-mail web applications, remote access, file and print services, intrusion detection systems, firewalls, physical security concepts, security policies, disaster recovery, and computer forensics. Students have a variety of hands-on and case project assignments that reinforce the concepts read in each chapter. Prerequisite: NET 161, NET 162

NET 616 - VMware VCP 3.00
This course equips students with the knowledge, skills, and abilities to build and run a VMware vSphere environment. It focuses on the installation and configuration of VMware ESXi/ESX hosts and VMware vCenter Server and on the management of ESXi/ESXi hosts and virtual machines with vCenter Server. The course prepares students to achieve the status of VMware Certified Professional. The course is based on VMware’s VCP certification and as such when VMware changes their VCP certification this course will change to reflect the most current certification requirements. Prerequisite: NET 219, NET 172

NET 617 - Implementing Security Policies and Procedures 3.00
This course is based on the International Organization of Standardization’s Code of Practice for Information Security Management. It uses real world examples and cases to instruct the student on creating a working security policy, maintain regulatory compliance, and protect information and information systems. Prerequisite: NET 612

NET 621 - Network Security Analysis 3.00
In this course, students will learn the duties of a cybersecurity analyst. Students are introduced to tools and tactics to manage cybersecurity risks, identify various types of common threats, evaluate the organization’s security, collect and analyze cybersecurity intelligence, and handle incidents as they occur. This course prepares students for the Comptia CySA+ exam.

NET 624 - Offensive Security I 3.00
This course enables students to use penetration-testing tools and techniques that ethical hackers and security testers utilize to protect computer networks. Skills and techniques include footprinting, social engineering, port scanning, enumeration, and cryptography. The course incorporates a lab component in which students practice skills designed to secure network connections and prevent attacks. Prerequisite: NET 423

NET 625 - Offensive Security II 3.00
This course enables students to use penetration-testing tools and techniques that ethical hackers and security testers utilize to protect computer networks. Skills and techniques include footprinting, social engineering, port scanning, enumeration, and cryptography. The course incorporates a lab component designed to work with multiple Linux systems in a virtual environment. The course incorporates a lab component in which students practice skills designed to secure operating systems and mobile devices and prevent attacks. Prerequisite: NET 624, Corequisite: NET 846

NET 633 - Computer Forensics Fundamentals 3.00
This course provides a complete overview of computer forensics from information security issues to crime scene investigation, seized data, determining the “fingerprints” of the crime, and tracking down the criminals. The course focuses on the process and procedural aspects of investigation and aid students in the use of the tools and the implementation of the procedures that are demonstrated in the Forensics and Investigation course. Prerequisite: NET 612

NET 638 - Network Firewalls and VPNs 3.00
This course focuses on the installation, setup and configuration of current firewall and VPN appliances along with the management tools. The course focuses on how to securely setup and configure a firewall and VPN network and network defenses. Prerequisite: NET 218

NET 730 - Computer Forensics and Investigations 3.00
This course is a combined lecture and lab class that provides students with a comprehensive understanding of computer forensics, investigation tools and techniques. Students learn how computer forensics and investigation is as a profession and they gain an understanding of the overall investigative process as well as how to set up an investigator’s office and laboratory. Students learn about the computer forensic hardware and software tools available. Students also learn the importance of digital evidence controls and how to process crime scenes as well as be introduced to data acquisition, computer forensic analysis, e-mail investigations, and image file recovery. The course provides a range of laboratory and hands-on assignments for students. Prerequisite: NET 161, NET 162

NET 846 - Cyber Crime Projects 3.00
This course enables students to use the complete set of skills they have learned in the courses that comprise the Cyber Security and Digital Crime program. By completing a computer forensics project and secure network/VPN project, students are able to demonstrate the ability to create and implement policies and procedures, monitor an active network, check vulnerabilities to attacks, and react to incoming attacks, conduct a digital investigation, create reports and defend their findings. Prerequisite: NET 730, Corequisite: NET 625
NET 917 - Experimental Course  1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

NET 949 - Special Topics  1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

PEC 110 - Coaching Ethics, Techniques, and Theory  1.00
This course studies the theory and techniques of coaching the interscholastic athlete and the interscholastic team, as well as the related responsibilities, duties, and problems. This is one of four courses leading to the coaching authorization issued by the Iowa Department of Education as a head coach or assistant coach of any interscholastic athletic activity. Completion of this course after July 2000 fulfills the Iowa State coaching endorsement ethics requirement.

PEC 115 - Athletic Development and Human Growth  1.00
This course introduces concepts in sports psychology for elementary school age children and adolescents. Physical, psychological, and social growth is examined as they relate to physical activity and competitive athletics. This is one of four courses leading to the coaching authorization issued by the Iowa Department of Education as a head coach or assistant coach of any interscholastic athletic activity.

PEC 120 - Body Structure and Function  1.00
This course is an introduction to the physiological processes and anatomical features of the human body which are related to and affected by physical activity and training. This is one of the four courses leading to the coaching authorization issued by the Iowa Department of Education as a head coach or assistant coach of any interscholastic athletic activities.

PEC 126 - Athletic Injury Prevention  2.00
This course introduces conditioning programs and training methods that tend to prevent athletic injuries. This course provides basic skills in injury procedures, while providing practical experience in taping techniques. This is one of four courses leading to the coaching authorization issued by the Iowa Department of Education as a head coach or assistant coach of any interscholastic athletic activity.

PEC 128 - Basic Athletic Training  2.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

PEC 148 - Physical Fitness I  2.00
This course builds fitness knowledge and fitness level through individualized program on exercise machines. An exercise program will be developed to meet each student's needs and the fitness level will be monitored throughout the course.

PEC 149 - Physical Fitness II  2.00
This course builds on the fitness gains made in Physical Fitness I. Students will be able to demonstrate the knowledge and clinical application of basic fitness skills. This course builds on skills acquired in Physical Fitness I. Prerequisite: PEC 148.

PEC 171 - Athletic Training Practicum I  1.00
This course is designed to provide the student with the opportunity to observe, learn, and practice advanced competencies and proficiencies within the profession of Athletic Training as set by the National Athletic Trainers Association (NATA). Students will be under the direct supervision of a clinical instructor at all times and will be able to demonstrate the knowledge and clinical application of advanced skills. This course builds on skills acquired in Athletic Training Practicum I. Prerequisite: PET 104.

PET 104 - Basic Athletic Training  2.00
This course is the first in a series of Athletic Training courses that introduce basic principles and techniques in the profession of Athletic Training. This course is an introduction to athletic injury prevention, recognition, evaluation, care, rehabilitation, and basic wrapping and taping techniques. This course is appropriate for athletic trainers as well as coaches, personal trainers, and physical educators.

PET 150 - Athletic Training Practicum II  1.00
This course is designed to provide the student with the opportunity to observe, learn, and practice intermediate competencies and proficiencies within the profession of Athletic Training as set by the National Athletic Trainers Association (NATA). Students will be under the direct supervision of a clinical instructor at all times and will be able to demonstrate the knowledge and clinical application of intermediate skills. This course builds on skills acquired in Athletic Training Practicum I and II. Prerequisite: PET 150.

PET 172 - Athletic Training Practicum III  1.00
This course is the second in a series of Athletic Training courses that introduce basic principles and techniques in the profession of Athletic Training. This course is designed to provide the student with the opportunity to observe, learn, and practice advanced competencies and proficiencies within the profession of Athletic Training as set by the National Athletic Trainers Association (NATA). Students will be under the direct supervision of a clinical instructor at all times and will be able to demonstrate the knowledge and clinical application of advanced skills. This course builds on skills acquired in Athletic Training Practicum I and II. Prerequisite: PET 171.

PET 105 - Introduction to Philosophy  3.00
This course introduces a broad spectrum of philosophical questions and perspectives, with an emphasis on the systematic questioning of basic assumptions about reality, knowledge, meaning, and values.
### PHR – PHARMACY TECH

**PHR 105 - Introduction to Pharmacy Technology**  
This course is designed to provide the student with a working knowledge about community and institutional pharmacy practice. This course teaches pharmacy technician students information, techniques, and procedures needed to assist the pharmacist in delivery of pharmaceutical products and services. Students taking this course should have basic reading comprehension skills and high school algebra.  
3.00

**PHR 120 - Pharmacology for Pharmacy Technician**  
This course introduces pharmacy technician students to the general principles of pharmacology. Drugs are discussed in the context of drug classes, mechanics of action, disease types, and body systems. The goal is to provide pharmacy technicians with sufficient background information so that they will be able to play a key role in avoiding dispensing errors. Prerequisite: PHR 105  
3.00

**PHR 135 - Pharmacy Calculations and Compounding**  
This course will include reading, interpreting, and solving calculation problems encountered in the preparation and distribution of medications. Specific compounding topics include medication and parenteral administration; facilities, equipment, and supplies utilized in admixture preparation; techniques utilized in parenteral product compounding; introduction to parenteral medication incompatibilities; and quality assurance.  
3.00

**PHR 140 - Pharmacy Law**  
This course reviews the laws affecting pharmacy practice. Course highlights include the Food, Drug and Cosmetic Act and various federal and state controlled substance acts.  
1.00

**PHR 917 - Experimental Course**  
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.  
1.00-4.00

**PHR 941 - Practicum**  
This course provides the student with the opportunity to learn the clinical skills required to function as a Pharmacy Technician. Students will also have the opportunity to demonstrate clinical applications of skills and to assume the role of the Pharmacy Technician. They will then apply and practice these skills in the institutional and/or retail pharmacy setting under the direct supervision of a pharmacist.  
1.00-4.00

**PHR 947 - Practicum**  
This course provides the student with the opportunity to learn the clinical skills required to function as a Pharmacy Technician. Students will also have the opportunity to demonstrate clinical applications of skills and to assume the role of the Pharmacy Technician. They will then apply and practice these skills in the institutional and/or retail pharmacy setting under the direct supervision of a pharmacist. Prerequisite: PHR 105, Corequisite: PHR 120  
1.00-4.00

**PHR 949 - Special Topics**  
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.  
1.00-4.00

### PHS – PHYSICAL SCIENCE

**PHS 120 - Exploring Physical Science**  
A combined lecture and lab class. Topics covered come from physics, astronomy, chemistry, geology and meteorology. There are no prerequisites. The course is intended to meet the science requirement for non-science majors including elementary education majors.  
4.00

**PHS 142 - Principles of Astronomy**  
This course is a physical science course which explores the mysteries of the universe. Through scientific reason, the course will examine the following: the history of astronomy, the planets, stars, nebulae, galaxies, the creation and fate of the universe and our place in it. This course includes amateur observation techniques.  
3.00

**PHS 917 - Experimental Course**  
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.  
1.00-4.00

**PHS 949 - Special Topics**  
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.  
1.00-4.00

### PHT – COMMERCIAL PHOTOGRAPHY

**PHT 103 - Print Presentation Techniques**  
This course emphasizes fundamental print finishing methods used in professional photography. Students experience corrective artwork and finishing methods used to enhance a photograph's overall presentation. Instructor consent is required.  
3.00

**PHT 104 - Introduction to Lighting**  
This course focuses on the elements of lighting, exposure, shadows, artificial and natural lighting as it pertains to photography. Students learn to use a variety of lighting techniques to enhance studio portrait photography. Corequisite: ART 184, PHT 135  
3.00
PHT 207 - Advanced Digital Darkroom 2.00
This course is designed to expand students’ understanding of digital software, digital manipulation, and digital workflow. Advanced techniques for manipulation and conversions are taught. Asset management procedures are stressed. Instructor consent is required.

PHT 208 - Basic Photojournalism 3.00
This combined lecture/lab course focuses on photojournalism as a profession and leads to publishable photographs through practical assignments. Students investigate techniques and working styles of distinguished photojournalists. Prerequisite: PHT 135

PHT 204 - Basic Commercial Photography 3.00
This course presents an overview of a profession in commercial still photography. Photographic techniques, professional expectations, types of assignments, working conditions, types of photography tools used, studio procedures, and equipment requirements will be discussed. Simple commercial techniques will be applied in realistic assignments. Prerequisite: PHT 135, PHT 104

PHT 214 - Advanced Lighting 3.00
This course builds on the introductory lighting class. Exploration of the elements of lighting, exposure, shadows, artificial and natural lighting as it pertains to photography are continued. Students learn to use a variety of lighting techniques to enhance their photography. A portfolio presentation is required upon completion. Instructor consent required. Prerequisite: PHT 104, PHT 135, PHT 204

PHT 230 - Advanced Portraiture 3.00
This course is designed to assist the student in learning advanced portrait techniques and the business procedures needed to start and maintain a portrait studio. The course creates an awareness of the work environment the student will enter as an assistant. This course builds on the skills learned in Basic Portraiture and will include various portrait assignments in the studio, outdoors and on location. A portfolio presentation is required upon completion of the class. Instructor permission required. Prerequisite: PHT 202

PHT 236 - Advanced Commercial Photography 3.00
Advanced commercial photography builds on the skills learned in Basic Commercial Photography. Students study studio and location commercial photography techniques with an emphasis on advertising photography. Studio operation procedures related to pricing, workflow, and scheduling are presented. A portfolio presentation is required upon completion. Instructor consent required. Prerequisite: PHT 204

PHT 237 - History of Photography 2.00
This course introduces students to the history of the photographic profession and its ascent to its present form. The people, processes, and their contribution to society throughout photography’s history is explored.

PHT 239 - Advanced Photojournalism 3.00
This course prepares students for future employment with newspapers and/or magazines. Students learn layout, cutline writing and photo editing work. Portfolio presentation is required upon completion. Instructor permission is required. Prerequisite: PHT 208

PHT 243 - Wedding Photography 3.00
This course presents an overview of the professional wedding field. The lessons will include instruction on equipment, lighting and posing utilized for photographing a wedding. The class also covers marketing, sales techniques and the day-to-day business procedures needed by the photographer to be successful in the wedding field. Instructor permission required. Prerequisite: PHT 135, PHT 104

PHT 298 - Photography Capstone Experience 2.00
This course is designed to provide students with the opportunity to apply the skills and knowledge from prior learning in the Professional Photography program. Students explore and analyze topics within the discipline of professional photography to meet their individually defined goals with approval of the instructor. They also assemble and present a body of work in a portfolio of images appropriate to their professional, educational or personal goals. The course concludes with a public exhibition of the students’ work. Instructor consent required.

PHT 917 - Experimental Course 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

PHT 947 - Photography Practicum 1.00
This course is designed to allow the student to work, generally on campus, in a faculty supervised activity with well-defined expectations, activities and outcomes, applying the knowledge and skills from prior learning. This will be a coordinated effort between the student, faculty member(s), and the work supervisor involving planning, evaluation, and photo editing work. Portfolio presentation is required upon completion. Instructor consent required.

PHT 948 - Special Topics 1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

PHY – PHYSICS

PHY 162 - College Physics I 4.00
This is a combined lecture and lab course focusing on the forces acting on bodies and their relationship to friction, motion, momentum, work, and energy in the field of mechanics; fluid mechanics, wave motion, sound, heat, and thermodynamics. Corequisite: MAT 121

PHY 172 - College Physics II 4.00
This course is a continuation of College Physics I with both lecture and lab focusing on optics, electricity and magnetism, quantum physics, relativity, and nuclear physics. Prerequisite: PHY 162
PHY 212 - Classical Physics I  
This is a lecture and lab course covering vectors, kinematics, Newton's laws, linear and angular momentum, gravitation, energy, fluid mechanics, heat, and thermodynamics. Corequisite: MAT 211

PHY 222 - Classical Physics II  
A continuation of Classical Physics I, this is a lecture and lab course covering oscillations, wave motion, sound, electricity, magnetism, and optics. Prerequisite: PHY 212, Corequisite: MAT 217

PHY 917 - Experimental Course  
1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

PHY 949 - Special Topics  
1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

PLU – PLUMBING

PLU 170 - Residential Piping  
3.00
This course identifies the various types of pipe and fittings used in residential plumbing systems. Students will have hands-on experience in the rough-in and finish stages of plumbing installation. Also emphasized is the extension of the sewer and water supply piping inside the building. Corequisite: PLU 171, PLU 172, BMA 175

PLU 171 - Residential Code  
2.00
This course provides information on how to read and understand the required codes that govern plumbing procedures in residential dwellings. Students will gain experience using the code books to identify the required procedures. Corequisite: PLU 170, PLU 172, BMA 175

PLU 172 - Residential Fixtures  
2.00
This course provides information needed to install fixtures, faucets, and appliances. Corequisite: PLU 170, PLU 171, BMA 175

PLU 180 - Commercial Piping  
3.00
This course identifies the types of pipe and fittings used in commercial plumbing systems. Students will have hands-on experience in plumbing installation. Prerequisite: PLU 170, CON 112, Corequisite: PLU 181, PLU 182

PLU 181 - Commercial Code  
2.00
This course provides information on how to read and understand the required codes that govern plumbing procedures in commercial buildings. Students will gain experience using the code books to identify the required procedures. Prerequisite: PLU 171, CON 112, Corequisite: PLU 180, PLU 182

PLU 182 - Commercial Fixtures  
2.00
This course provides information needed to install commercial fixtures. Prerequisite: PLU 172, CON 112, Corequisite: PLU 180, PLU 181

PLU 190 - Plumbing Troubleshooting  
2.00
This course introduces the basic troubleshooting skills that will be essential to repair drains, waste and vent systems, water supplies, and natural gas lines. Scenarios are provided to enable students to locate the symptoms and diagnose the right cause and work to repair the system at fault. Students are exposed to various methods of troubleshooting on a variety of plumbing systems. Prerequisite: PLU 170, PLU 172, CON 112, BMA 175

PNN – PRACTICAL NURSING

PNN 624 - Nursing I  
9.00
A combined course that includes: classroom, lab, and clinical. Nursing I provides an overview of the nursing program at Western Iowa Tech Community College and the role of the individual as a student, introducing the student to the practical nurse's role in the health care environment. Concepts of health, illness, and environment as they relate to nursing practice are discussed. Students are introduced to the principles of communication, elements of the nursing process, and roles of caregiver, manager, and member of profession. Emphasis is placed on predictable needs of the client utilizing Gordon's Functional Health Patterns within the nursing process. Critical thinking is inherent in the nursing process and incorporated throughout the course. Prerequisites for hybrid online section: proof that all required support courses for the PN Program have been completed. Corequisite: SDV 108 The College Experience BIO 151 Nutrition BIO 169 Human Anatomy and Physiology IA w/lab

PNN 625 - Nursing II  
9.00
A combined course that includes: classroom, lab, clinical, and preceptorship. Nursing II prepares the student to safely manage the care of clients throughout the life span by assuming the practical nurse roles of caregiver, manager, and member of profession. Concepts of health, illness, and environment as they relate to nursing practice are discussed. Emphasis is placed on predictable needs of the client utilizing Gordon's Functional Health Patterns within the nursing process. Critical thinking is inherent in the nursing process and incorporated throughout the course. Clinical preceptorship provides an opportunity for students to mentor with a licensed practical nurse (LPN). Students will practice clinical and leadership skills necessary to successfully transition into the role of an entry-level LPN. Focus is placed on the enhancement of leadership and collaboration skills, organization, supervision, delegation, prioritization, and management of multiple clients in a long term care setting. Advisor permission required. Prerequisite: PNN 624, BIO 151, BIO 169

PNN 853 - IV Therapy: Concepts and Techniques  
3.00
This course is designed to provide the theoretical concepts and skills associated with intravenous therapy to LPNs working in a licensed hospital, licensed skilled nursing facility or a certified end-stage renal dialysis unit. The areas of discussion include anatomy and physiology, infection control, methods of infusion, care and maintenance, necessary equipment and assembly, venipuncture skills, and potential complications. Training will consist of a combination of theory, lab, and practical experience. LPNs must hold an unrestricted Iowa license and have a documented 1040 hours of practice as an LPN to be eligible to take the class. Participants must also score 90% or better on the state LPN IV math pre-test. Successful completion of the classroom and clinical components by the licensed practical nurse (LPN) meets the Iowa Board of Nursing requirements for the LPN to perform procedures related to the expanded scope of practice for intravenous therapy. The course is also appropriate as an intravenous therapy refresher course for registered nurses and allied health professionals.

PNN 917 - Experimental Course  
1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

PNN 949 - Special Topics  
1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.
**PRL – PARALEGAL**

**PRL 103 - Introduction to Law** 3.00
This course will introduce students to the paralegal profession. An examination of the legal system, with emphasis on Iowa court structure, is included. Students will be introduced to the law library, become familiar with sources of legal authority, legal analysis and writing as well as the specific functions and duties of the paralegal within the law. Students will build critical thinking skills pertaining to legal studies while receiving an overview of various aspects of law.

**PRL 108 - Legal Procedures and Processes** 3.00
This course expands upon Office Procedures by preparing the student for the law office setting. This course will allow the student to build upon existing skills and expand aptitude in becoming an integral asset of a law office. Students will learn how various types of law offices operate, improve communication skills, enhance professionalism, bill clients, retain documents, and maintain confidentiality of clients. Prerequisite: PRL 103, ADM 162

**PRL 112 - Legal Research and Writing I** 3.00
This course provides an intensive introduction to legal research tools and techniques, including retrieval of case and statutory authority, use of encyclopedias, legal periodicals, treatises and other secondary authority, proper case citation form, and the drafting of internal and external documents, letters, memoranda, and other written materials. This course will increase skills in process writing, writing fundamentals, and proofreading. Students will also develop skills in writing legal correspondence as well as analytical writing, i.e. briefing cases, legal memoranda, persuasive writing, drafting pleadings, motions, legal briefs, and drafting discovery documents. Prerequisite: PRL 281, ENG 105

**PRL 131 - Torts and Litigation I** 3.00
This course introduces basic areas of law dealing with civil wrongs, with coverage of intentional torts, negligence, malpractice, defamation, joint and vicarious liability, auto insurance, and workers’ compensation. It also defines basic principles of assisting the law office with matters concerning jurisdiction, venue, preparing basic pleadings, discovery documents, pre-trial and post-judgment motions, managing the case file, attending to service of process, and assisting in the courtroom. Prerequisite: PRL 103

**PRL 161 - Family Law** 3.00
This course emphasizes substantive law and provides an overview of common procedures related to domestic relations law, including the formation and dissolution of marriage, marital property, child custody and support and related matters. In addition, students will receive instruction regarding skills needed in client interviewing, organization of financial records, answering of interrogatories and request for production of documents and ethical guidelines to which a paralegal should adhere. Prerequisite: PRL 101

**PRL 164 - Legal Applications and Practices** 3.00
This course provides an intensive application of various aspects of law which will prepare the paralegal student for employment. Students will learn about residential real estate transactions, estate planning and probate, debtor/creditor, landlord/tenant and Uniform Commercial Code forms. This course will give students the opportunity for hands-on experience and training by accessing and preparing legal documents. This course will increase skills in process writing, writing fundamentals, and proofreading. Prerequisite: PRL 108, PRL 112

**PRL 191 - Criminal Procedure** 3.00
This course examines the fundamentals of substantive criminal law and procedures unique to criminal cases, including an examination of the practical aspects of prosecution and defense, the constitutional rights of the accused, plea bargaining and the unique aspects of a criminal trial. It also examines criminal law concepts and various types of crimes. Students learn about procedure, including, but not limited to, the rights of crime victims, the law of arrest, interrogation, confessions and constitutional rights as they pertain to a criminal defendant, sanctions and sentencing. Prerequisite: PRL 103, PRL 281

**PRL 281 - Legal Ethics** 2.00
This course covers legal ethics with an emphasis on how the rules affect legal assistants. Students learn about the regulation of the legal profession including the rules of conduct that govern both attorneys and legal assistants. Topics include the meaning and importance of the unauthorized practice of law, the attorney-client privilege and its related work product doctrine, confidentiality, the rules governing conflicts of interest and other topics ethical in nature. Law office management is also addressed. Prerequisite: PRL 103

**PRL 917 - Experimental Course** 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

**POL – POLITICAL SCIENCE**

**POL 111 - American National Government** 3.00
This course is an introduction to the American system of government, including the U.S. Constitution. Basic philosophies, general principles of federalism, civil liberties, public opinion, political parties and interest groups, the electoral process, and the structure and function of national government will be covered.

**POL 122 - American State and Local Government** 3.00
An analysis of American politics and government at the state, local, and municipal level. Historical developments and operations, the political economy, and cross-comparisons of various state and local governments, with special emphasis on Iowa, will be covered.

**POL 121 - International Relations** 3.00
This Course is an introduction to the study of foreign policies, diplomacy, economics, security, and organizations. Current problems in international relations will be addressed.

**POL 125 - Comparative Government and Politics** 3.00
This course is a comparison of the governments and politics of major world powers. Specific attention will be paid to political culture, parties, electoral process, and executive, legislative, and judicial systems.

**POL 917 - Experimental Course** 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

**POL 949 - Special Topics** 1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

**POL 111 - American National Government** 3.00
This course is an introduction to the American system of government, including the U.S. Constitution. Basic philosophies, general principles of federalism, civil liberties, public opinion, political parties and interest groups, the electoral process, and the structure and function of national government will be covered.

**POL 122 - American State and Local Government** 3.00
An analysis of American politics and government at the state, local, and municipal level. Historical developments and operations, the political economy, and cross-comparisons of various state and local governments, with special emphasis on Iowa, will be covered.

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This course is a comparison of the governments and politics of major world powers. Specific attention will be paid to political culture, parties, electoral process, and executive, legislative, and judicial systems.

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An analysis of American politics and government at the state, local, and municipal level. Historical developments and operations, the political economy, and cross-comparisons of various state and local governments, with special emphasis on Iowa, will be covered.

**POL 121 - International Relations** 3.00
This Course is an introduction to the study of foreign policies, diplomacy, economics, security, and organizations. Current problems in international relations will be addressed.

**POL 125 - Comparative Government and Politics** 3.00
This course is a comparison of the governments and politics of major world powers. Specific attention will be paid to political culture, parties, electoral process, and executive, legislative, and judicial systems.
PSY 102 - Human and Work Relations 3.00
This course introduces students to the application of psychological theory and practice to the work place. The course includes a variety of human relations skills and diversity with an emphasis on practical application. Attention is given to workforce dynamics with a focus on conflict resolution, leadership skills, and interpersonal communication, as they relate to family, work and day-to-day experiences.

PSY 111 - Introduction to Psychology 3.00
This course introduces students to the scientific study of mental processes and behavior with emphasis on the nervous system, learning and memory, cognition, sensation and perception, motivation and emotion, personality, intelligence, stress, psychological disorders and therapy, and social influence. This course explains the roles of theory and empirical evidence in describing, and predicting behavior. Students apply critical thinking in relation to research methods and ethics in the field of psychology.

PSY 121 - Developmental Psychology 3.00
This course examines the process of human development, covering the life span of the individual. It includes integration of the basic concepts and principles of physical, cognitive, social, and psychosocial development. Topic areas include: genetics, prenatal development, infancy, childhood, adolescence, adulthood, and death. Prerequisite: PSY 111

PSY 171 - Health Psychology 3.00
This course addresses information about psychological aspects of illness, hospitalization and lifestyle choices as they affect health. The course addresses such topics as the effects of stress on illness, lifestyle choices, how health services are used and misused, the patient-practitioner's relationship, and the emotional adjustment to chronic illness and hospitalization. This course may be used as a supplemental course for health care students, as well as continuing education units (CEUs) for health care professionals currently working in the field. Prerequisite: PSY 111

PSY 211 - Psychology of Adjustment 3.00
This course is the study of the adjusting/coping behavior of the individual in various aspects of life situations. Prerequisite: PSY 111

PSY 222 - Child Psychology 3.00
This course is design for students to analyze psychological development of the child in relation to the biological, physical, and sociological antecedent conditions from prenatal to adolescent stages. Emphasis on contemporary theories of child psychology, including: physical growth and development, personality and social learning, cognition and perception, and language development. Prerequisite: PSY 111

PSY 224 - Adolescent Psychology 3.00
This course explores the rapid physical, social, emotional, and cognitive changes of adolescents. Students distinguish myths about adolescence from research findings and examine the importance of cultural and historical factors in this crucial transition from childhood to adulthood. Prerequisite: PSY 111

PSY 241 - Abnormal Psychology 3.00
This course will introduce student to theories of psychopathology and behavioral changes associated with abnormal behavior. Emphasis is on ethical issues of diagnosis and treatment, and major diagnostic categories such as schizophrenia, organic brain disorders, and personality disorders. Prerequisite: PSY 111

PSY 241 - Social Psychology 3.00
The course studies interpersonal relations, social attitudes, group dynamics, inter-group relations, class and cultural influences in a psychological context. Prerequisite: PSY 111

PSY 251 - Social Psychology 3.00
The course studies interpersonal relations, social attitudes, group dynamics, inter-group relations, class and cultural influences in a psychological context. Prerequisite: PSY 111

PSY 261 - Human Sexuality 3.00
Human Sexuality focuses on normal sexual development, human sexual responses, and common sexual problems. It provides factual information on human sexuality and raises practical questions about human sexual behavior. It also helps students examine and evaluate their views and values concerning sexual behavior. Prerequisite: PSY 111

PSY 295 - Co-occurring and Addictive Disorders 3.00
This course considers prevention topics, such as harm reduction, the war on drugs and legalization. Practical content includes assessment, intervention methods and treatment outcome evaluation with an emphasis on the empirical literature. A wide variety of clinical methods and issues are reviewed and evaluated. Examples include: the validity of self-reports; motivational interventions; relapse prevention; tolerance; physical dependence; self-help groups; natural recoveries (i.e., without formal treatment); and cost-effective and efficient approaches to treatment. Prerequisite: PSY 241

PSY 917 - Experimental Course 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

PSY 932 - Internship 1.00-4.00
This course provides on-the-job experience and practical application of the theories and concepts studied in Chemical Dependency/Co-Occurring counseling course work. It involves a coordinated effort between the student, Western Iowa Tech Community College faculty members and a work supervisor at the agency site. Students will be required to complete a minimum of 64 hours at an approved work site. Corequisite: PSY 241

PSY 949 - Special Topics 1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

PTA – PHYSICAL THERAPIST ASSISTANT

PTA 104 - Introduction to Physical Therapy 1.00
This course is designed to give the student an overview of the profession of Physical Therapy. The basic concepts of the function of a Physical Therapist and a Physical Therapist Assistant as a member of the health care team will be examined and discussed. This is a hybrid course with live meetings and online assignments.

PTA 130 - Activities of Daily Living 4.00
This course is a combined lecture and lab course. It introduces principles and techniques of client/patient handling and activities of daily living. It provides students with understanding of activities of daily living training including bed mobility, transfer, gait, locomotion, developmental activity, dressing, bathing, eating, and toileting. It includes assistive/adaptive devices and equipment training, body mechanics training, diagnosis measures, and basic clinic safety. Corequisite: HSC 170, HSC 114, PTA 104

PTA 170 - Physical Therapy Science I 5.00
This course provides the physical therapist assistant student in introduction to assessment and measurement and documentation skills, (data collection), therapeutic exercise, patient interaction, pain perception, cultural diversity, confidentiality, joint replacements, orthopedic skills, athletic training, professional literature, and home health. Students participate in implementing a plan of care including discharge planning and home programs. Prerequisite: PTA 130, PTA 104, Corequisite: HSC 127, HSC 218
PTA 189 - Physical Agents 3.00
This course involves didactic and clinical teaching in the areas of therapeutic agents and electrotherapy. It includes hydrotherapy and related procedures such as massage and wound care. Prerequisite: PTA 170, Corequisite: PTA 270, PTA 260, HSC 265

PTA 260 - Management of Clinical Services 3.00
This course is designed to introduce the student to the principles of management and administration of physical therapy services. Cooperative learning will focus on levels of authority and responsibility, time management, supervisory process, performance evaluations, policies and procedures, fiscal considerations, and quality assurance. The course also includes service learning. Corequisite: PTA 270, PTA 189

PTA 270 - Physical Therapy Science II 5.00
This course combines lecture and lab activities to provide the physical therapist assistant student a progression of Physical Therapy Science I in the specialized areas of neurological rehabilitation, pediatrics, orthotics/prosthetics, cardiopulmonary, wellness, work conditioning, burns, women’s health, geriatrics, and professional literature. Prerequisite: PTA 170, HSC 127, Corequisite: PTA 189, PTA 260, HSC 265

PTA 441 - PTA Clinical Affiliation I and Seminar 3.00
This course is the initial full-time clinical experience under the direct supervision of a physical therapist or physical therapist assistant at an affiliating physical therapy center. Following the clinical, students participate in a seminar. Prerequisite: PTA 270

PTA 442 - PTA Clinical Affiliation II and Seminar 4.00
This course is the second of three full-time clinical experiences under the direct supervision of a physical therapist or physical therapist assistant. Following the clinical, students participate in a seminar. Prerequisite: PTA 441

PTA 443 - PTA Clinical Affiliation III and Seminar 5.00
This course is the third in a series of three full-time clinical experiences under the direct supervision of a physical therapist or physical therapist assistant. Following the clinical, students participate in a seminar. Prerequisite: PTA 442

PTA 917 - Experimental Course 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

PTA 949 - Special Topics 1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

REL – RELIGION

REL 101 - Survey of World Religions 3.00
This course explores the world view, doctrines, and practices of the following major religions: Tribal, Hindu, Buddhist, Confucian/Taoist, Jewish, Christian, Muslim, and New Age. It examines themes such as view of the world, views of God, condition of humankind, requirements for a moral life, etc.

REL 150 - Introduction to the Bible 3.00
This course introduces the practice of the contextual method of reading a text, as applied to the biblical materials. It asks: What kind of material is this? Who wrote it? To whom were they writing in their own time? What were they trying to say to the people in that situation? The course is not devotional or applicational, but literary and historical.
SDV 066 - Career Decisions 3.00
This course is designed to provide students with a foundation for creating career goals using the 16 career clusters as a guide. Features include college and career readiness activities covering writing, speaking, and listening as well as career ready practices. Instructor approval required.

SDV 108 - The College Experience 1.00
This course introduces students to the College’s expectations, environment, and resources so that students may become more competent participants in the learning process.

SDV 153 - Pre-Employment Strategies 2.00
This course is designed to prepare students for a competitive job market. Elements include self-analysis of abilities and goals, job inquiry and research, resume and portfolio preparation, job application and follow-up letters, job application forms, interviewing techniques, and projecting into the future workplace. Document Formatting I or Keyboarding is suggested but not required.

SDV 208 - The College Experience for International Students 1.00
This course introduces International students to WITCC’s college expectations, environment, and resources so that student may become more competent participants in the learning process. Emphasis is placed on assessing resources to enhance International students’ experiences and success while studying at WITCC.

SDV 917 - Experimental Course 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

SDV 949 - Special Topics 1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

SMM – SOCIAL MEDIA and MARKETING

SMM 101 - Social Media Explored 3.00
This course explores the history and future of social media in relation to marketing, branding and community building. Course content includes discussion of audience engagement, political and social activism, media, advertising and marketing. Current social media tools are used within this course to enhance understanding of the course material.

SMM 107 - Applied Social Marketing 3.00
This course provides students opportunities to implement the use of social media tools for digital marketing which serves as a convergence point between commerce and consumer interaction. Students study consumer behavior using digital analytics, social engagement, marketing strategies and case studies. Prerequisite: SMM 101.

SMM 917 - Experimental Course 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

SMM 949 - Special Topics 1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

SOC – SOCIOLOGY

SOC 110 - Introduction to Sociology 3.00
This course is a survey of the fundamental concepts used in the study of human social interaction with emphasis on group aspects of social behavior. Subject areas include research methods, theory, culture and social structure, socialization, groups and formal organizations, deviance and social control, stratification, race and ethnicity (including whiteness), major social institutions, and social change.

SOC 115 - Social Problems 3.00
This course is a survey of selected problems of modern society, primarily in the United States, their nature, development, social courses and alternative solutions. It includes such topic areas as racial and sexual discrimination, urban and rural problems, crime and delinquency, family and generational problems, health and medical care, social deviance, substance abuse and such global problems as population, world hunger and international conflict.

SOC 120 - Marriage and Family 3.00
This course examines the family as a basic institution. Special focus is given to the marital life cycle: courtship, dating, marriage, the childbearing years, parent-child relationships and marriage during the middle and older years. This course examines the implication of marital dissolution and the family, as they exist under modern social conditions. Focus is given to contemporary variations of the family commonly referred to as intimate relationships (co-habitation, hooking up and gay marriage). This course is a required component for USD, BCU and BVU Social Work transfer programs and the WITCC Addictions Counseling Associate of Arts degree.

SOC 160 - Introduction to Social Work 3.00
The conceptual and theoretical framework presented in this course provides students the tools to practice social work in a variety of settings. The format of this class provides a combination of classic theory, new research and applied experience.

SOC 180 - Social Work Interactional Skills 3.00
This course focuses on students gaining an understanding and beginning mastery of interpersonal and interactional helping skills utilized by social workers in practice. The organization of the course and the learning methods used focus on both didactic and experiential learning. The content of the course is taught through lecture, discussion and interactional laboratory sessions in which the students learn through individual and group exercises, role play and activity experiences. This course is required for social work students transferring to USD and for WITCC’s Addictions Counseling program.

SOC 200 - Minority Group Relations 3.00
This course acquaints the student with the sociological approach to understanding issues facing diverse populations. This course provides insight into barriers faced by race and ethnic groups and ways in which these barriers are navigated. The study of race and ethnicity includes a comprehensive examination of whiteness as a race, and the privilege of whiteness nationally and globally. Issues of race and ethnicity are presented through a global lens, primarily through theories of Diasporas. Prior completion of SOC-110 Introduction to Sociology is recommended.

SOC 210 - Men, Women and Society 3.00
This interdisciplinary course is designed for first or second year students to explore men’s and women’s experiences in American society and the role that ideas about sexual differences have played in shaping those experiences. Areas of inquiry will include, but are not limited to, the following: the construction of gender roles and sexuality; the relationship between gender and other social, political, and legal structures and institutions; and the interplay of gender with race, class, and ethnicity in cultural perceptions and expectations of both men and women. This course will strive to assist students in formulating questions about gender as it relates to their on-going work in various disciplines across the curriculum.
SOC 212 - Diversity
This course utilizes an interdisciplinary and intersectional approach to studying gender, race, class, sexuality and other issues of diversity. The curriculum highlights the duality of oppression and privilege and the ways in which race, gender, class and sexuality shape daily life. Special focus is on learning how to demonstrate course concepts as social action. Social justice is practiced as students become educated in these concepts of diversity and engage in diversity conscious social action.

SOC 216 - Study of Alcohol Use and Abuse
This course is a survey of the historical and contemporary use, abuse and addictive nature of ethyl alcohol and the symptomatology and treatment of alcohol dependence. Students will be provided with a basic knowledge of the nature, scope and complexity of alcohol dependence and the wide range of current approaches to its treatment and prevention. Special attention will be given to issues of racial-ethnic and spiritual diversity within the context of alcohol use, abuse and recovery.

SOC 217 - Study of Drug Use and Abuse
This course provides students with an understanding of the fundamentals of mood-altering chemicals other than ethyl alcohol, and, theories, symptomatology and drug related illnesses (HIV/AIDS and Hepatitis C). Students will also gain an understanding of the wide variety of perspectives related to the legality and/or illegality of many mood-altering chemical substances. Varying approaches to treatment and prevention of drug abuse will also be explored. Special attention will be given to issues of racial-ethnic and spiritual diversity within the context of drug use, abuse and recovery.

SOC 220 - Sociology of Aging
This course helps the student be informed on national and global issues of aging. Because of expanded life expectancy, aging is an extended developmental stage with multi-faceted and sometimes conflicting social expectations. This course examines ways in which adults navigate this complex developmental stage. This course is interdisciplinary and includes perspectives from sociology, psychology, social work, anthropology, biology, health science and history.

SOC 250 - Sociology of Deviance
This course consists of theoretical analysis of the relation of deviant group behavior and subcultures/countercultures to community standards of conventional behavior as expressed in laws and norms. Analysis of social control settings and mechanisms and the relationship between social deviance and social control efforts at both the micro and macro levels are emphasized.

SOC 917 - Experimental Course
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

SOC 932 - Internship
This course provides students with on the job experience and practical application of the theories and concepts studied in Addictions counseling course work. It involves a coordinated effort among the student, Western Iowa Tech Community College faculty members and a work supervisor at an agency site. Students are required to complete a minimum of 64 hours at an approved work site for this course. These hours are only a part of the total 1000 hours necessary for full certification. Prerequisite: SOC 110, Instructor permission.

SOC 949 - Special Topics
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

SPC – SPEECH

SPC 112 - Public Speaking
The course combines theory of speech communication with public speech performance skills. Emphasis is on speech delivery, preparation, organization, support, and audience analysis. Practice of skills is through presentation and exercise.

SPC 122 - Interpersonal Communication
This course teaches principles of effective communication in one-to-one relationships and in small groups. It focuses on communication theory, listening, self-concept, language, perception, and nonverbal communication.

SPC 917 - Experimental Course
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

SPC 949 - Special Topics
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

SUR – SURGICAL TECHNOLOGY

SUR 111 - Surgical Procedures I
This is the first course that will focus surgical procedures. General surgery will include open, laparoscopic and robotics of the gastrointestinal tract, biliary tract, pancreas and spleen, hernia repair, breast, and thyroid. Procedures will include surgical anatomy, incisions, preoperative diagnoses; patient preparation; case preparation: outcomes and possible complications for the surgery. Topics relating to wounds include characteristics, types, inflammation, and the phases of healing. Other topics include sutures, staplers, and accessory devices, used to close a surgical wounds. The student will be provided with hands-on experience in preparing the necessary these procedures. Corequisite: SUR 127, SUR 132, SUR 133

SUR 112 - Surgical Procedures II
This is the second course that focuses on surgical procedures in the specialty areas of Orthopedics, OB/GYN, Genitourinary and Ophthalmic. Procedures will include surgical anatomy, incisions, preoperative diagnoses; patient preparation; case preparation: outcomes and possible complications for the surgery. This course utilizes lecture and supervised clinical practice which provides correlation of theory to practice and development of skills. Prerequisite: SUR 111, SUR 127, SUR 132, SUR 133

SUR 127 - Introduction to Surgical Technology
This course provides the student with basic surgical protocols and procedures. Course components include responsibilities, characteristics, and interpersonal relationships of the Surgical Technologist. Historical development, Professional organizations, law and ethic and Medical terminology are included. In addition, students will become familiar with the hospital organization, administration, and physical structure, as well as operation room occupational hazards, safety precautions and infection control standards set forth by OSHA and the CDC. Instructor consent required.
SUR 132 - Surgical Technology Practice 5.00
This course introduces the student to the concepts and procedures of surgical care. Topics to be covered include aseptic technique, hand washing, the surgical scrub and surgical gowning techniques, as well as daily procedures and protocols of the surgical process. The student will become familiar with the various routines in the operating room such as case assignments, gathering supplies, surgeon’s preference cards, operating room records; back table and Mayo stand set-up, and signals, handling of specimens, surgical counting and draping of the patient. Lab exercise will be conducted to provide hands-on practical experience. Instructor consent required. Corequisite: SUR 111, SUR 127, SUR 133, BIO 169

SUR 133 - Surgical Asepsis and Instrumentation 3.00
This course introduces the student to the basic surgical instruments and application of microbiology as it relates to sterilization and asepsis. Emphasis on identification (type, function, and name) and proper handling, including assembly and sterilization, of instruments, equipment, and supplies. Techniques and procedures also include setting up, counting, and handling instruments, sponges, needles, and other sterile supplies. Hands-on practice selecting instruments and accessories will be provided. Corequisite: BIO 169, SUR 111, SUR 127, SUR 132

SUR 145 - Patient Care Concepts 3.00
This course introduces the student to the roles and responsibilities of the surgical team when delivering peri-operative patient care and surgical services. Patients’ needs are addressed in addition to patient identification, review of the chart, documentation, and surgical positioning, skin preparation, urinary catheterization, specimen care, wound classification, vital signs, hemo-dynamics, monitoring and discharge planning. Instructor consent required. Prerequisite: SUR 127

SUR 213 - Surgical Procedures III 8.00
This is the third course that focuses on surgical procedures in the specialty areas of Otorhinolaryngology, Plastic Reconstructive, Oral Maxillofacial, and Neurosurgery. Procedures will include surgical anatomy, incisions, preoperative diagnoses; patient preparation; case preparation: outcomes and possible complications of the surgery. This course utilizes lecture and supervised clinical practice which provides correlation of theory to practice and development of skills. Prerequisite: SUR 112

SUR 214 - Surgical Procedures IV 7.00
This is the fourth course that focuses on surgical procedures in the specialty areas of Thoracic, Vascular, Cardiac, Pediatrics and Trauma. Procedures will include surgical anatomy, incisions, preoperative diagnoses; patient preparation; case preparation: outcomes and possible complications of the surgery. This course utilizes lecture and supervised clinical practice which provides correlation of theory to practice and development of skills. Prerequisite: SUR 213

SUR 350 - Surgical Board Review 1.00
The purpose of this course is to prepare the students to sit for the Surgical Technology National Board Certified Examination. Preparation will be a review of materials previous presented throughout the surgical technology program. Prerequisite: SUR 353

SUR 423 - Pharmacology for the Surgical Technologist 3.00
This course introduces pharmacological fundamental that correlate with the surgical settings. Emphasis is placed on the role and responsibility of the surgical technologist related to medication handling. The student will compare and contrast methods, agents, and techniques of administration and preparation medications and solutions. Topics to be covered will include surgical team roles, classifications, packaging, measurements, calculations, and delivery of medications. Anesthesia techniques including regional, general and local administration are covered. Prerequisite: SUR 127, SUR 132

SUR 535 - Surgical Preceptorship 2.00
This course is conducted in a surgical facility and provides students an on-the-job clinical experience with a variety of perioperative assignments. The student will experience a wide variety of operating room situations where he/she will use the skills learned in the classroom. Under the supervision of the clinical preceptor, the student will take part in surgical procedures and work as a member of the surgical team demonstrating preparedness for entry level employment. Instructor consent required. Prerequisite: SUR 214

SUR 917 - Experimental Course 1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

SUR 949 - Special Topics 1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

WEL – WELDING

WEL 110 - Welding Blueprint Reading 2.00
This course presents the use of blueprints for transfer of ideas and information. Students learn how to read blueprints with special emphasis on welding blueprints, including lines, views, material descriptions, welding layouts, welding symbols and terms. The application of concepts will be emphasized. Prerequisite: MAT 772

WEL 112 - Welding Blueprint Reading/ Advanced 2.00
This course presents the use of blueprints for transfer of ideas and information. It covers how to read blueprints with special emphasis on welding blueprints, including lines, views, material descriptions, welding joints, pipe symbols and inspection and testing. This course emphasizes the application of concepts. Prerequisite: WEL 110

WEL 120 - Oxy Fuel Welding and Cutting 2.00
In this course students will learn the fundamentals of oxy/fuel welding including the safe operation, proper setup, and welding and metal cutting skills. Topics include fusion welding and brazing on light gauge metals, as well as cutting on heavy and light gauge metals.

WEL 147 - ARC Welding Introduction (SMAW) 3.00
This is the first of two courses designed for students to prepare for the AWS Certification. A combined lecture and lab course, students study safety, heat settings, polarity, and the proper selection of electrodes in the arc welding process. Topics include welding on carbon steel plate, use of visual inspection and destructive testing according to the AWS D 1.1 code.

WEL 148 - ARC Welding Intermediate (SMAW) 3.00
This is the second of two courses designed for students to prepare for the AWS certification. A combined lecture and lab course, students study safety, heat settings, polarity, penetration welding, horizontal and vertical welding, and the proper selection of electrodes in the arc welding process. Topics include welding on carbon steel plate, use of visual inspection and destructive testing according to the AWS D 1.1 code. Prerequisite: WEL 147

WEL 164 - Arc Welding II (SMAW) 4.00
This course combines lecture and lab activities to present welding codes, distortion, and welding inspection. Students are exposed to welding with a variety of welding electrodes, providing lab experiences in full penetration, horizontal, vertical, and overhead position welds. Prerequisite: WEL 148

WEL 191 - Gas Tungsten Arc Welding 3.00
This course combines lecture and lab activities to present Tungsten Inert Gas (TIG) welding process. Students study equipment use, welding procedures, position welding, welding of common metals and safety precautions. Topics include welding in all positions on ferrous and nonferrous metals. Prerequisite: WEL 120
<table>
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<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>WEL 208</td>
<td>Introduction to Fabrication</td>
<td>2.00</td>
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<td>This course combines lecture and lab activities</td>
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<td>to develop individualized skills needed in a</td>
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<td>manufacturing atmosphere such as tool usage,</td>
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<td>layout methods and material estimation. Students</td>
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<td>are provided an opportunity for plate welding</td>
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<td>certification. Prerequisite: Assessment and</td>
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<td>advising. Prerequisite: MAT 772, WEL 425, WEL</td>
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<td>WEL 292</td>
<td>Pipe Welding/SMAW - Uphill</td>
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<td>This course introduces students to the knowledge</td>
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<td>and skills needed for pipe welding in the 2G,</td>
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<td>5G, &amp; 6G positions using the SMAW process. It</td>
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<td>is a combined lecture and lab course. Prerequisite:</td>
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<td>WEL 164</td>
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<td>WEL 294</td>
<td>Pipe Welding GTAW/SMAW</td>
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<td>This course prepares students for entry-level</td>
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<td>positions using pipe welding in the 2G, 5G, &amp;</td>
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<td>6G positions using GTAW and SMAW processes.</td>
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<td>Prerequisite: WEL 191</td>
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<td>WEL 331</td>
<td>Welding Fundamentals</td>
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<td>This course is designed for the student who</td>
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<td>needs basic welding skills. The four welding</td>
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<td>processes covered are: Shielded Metal Arc</td>
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<td>Welding (SMAW or stick), Oxy-Acetylene Welding,</td>
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<td>Gas Metal Arc Welding (MIG), and Gas Tungsten</td>
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<td>Arc Welding (TIG). Topics include: safety,</td>
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<td>setup of equipment, electrode selection, metal</td>
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<td>transfer, shielding gases, welding distortion</td>
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<td>control, and the welding of ferrous and</td>
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<td>nonferrous metals. Lab experience will provide</td>
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<td>for skill development in these areas.</td>
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<td>WEL 420</td>
<td>Intermediate Pulse Arc GMAW Welding</td>
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<td>This course combines lecture and lab activities</td>
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<td>to present the Gas Metal Arc welding (MIG)</td>
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<td>process used extensively by industry, with a</td>
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<td>focus on pulse metal transfer. It emphasizes</td>
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<td>GMAW equipment, welding procedures, and out of</td>
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<td>position welding with an emphasis on aluminum</td>
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<td>and mild steel, as well as safety. Prerequisite:</td>
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<td>WEL 424</td>
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<td>WEL 421</td>
<td>Flux Core Arc Welding (FCAW)</td>
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<td>This course combines lecture and lab activities</td>
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<td>to introduce the Flux Cored Arc Welding (FCAW)</td>
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<td>process used extensively by industry. Students</td>
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<td>learn through hands-on applications and will be</td>
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<td>FCAW equipment, welding procedures, out of</td>
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<td>position welding, and safety. Prerequisite: WEL</td>
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<tr>
<td>WEL 422</td>
<td>GMAW for Production</td>
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<td>to present the Gas Metal Arc welding (MIG)</td>
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<td></td>
<td>process used extensively by industry. A</td>
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<td></td>
<td>continuation of Intro to GMAW, WEL 423, students</td>
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<td></td>
<td>learn out of position welds using hands-on</td>
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<tr>
<td></td>
<td>applications, metal transfer concepts, GMAW</td>
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<td></td>
<td>equipment maintenance, welding procedures, out</td>
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<tr>
<td></td>
<td>of position welding, and safety. Prerequisite:</td>
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<td>WEL 423</td>
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<tr>
<td>WEL 423</td>
<td>Intro to GMAW</td>
<td>2.00</td>
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<td>This course combines lecture and lab activities</td>
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<td>to present the Gas Metal Arc Welding (MIG)</td>
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<td>process used extensively by industry. It</td>
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<td>emphasizes hands-on applications, metal transfer</td>
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<td>concepts, GMAW equipment, and safety.</td>
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<td>WEL 424</td>
<td>Intro to Pulse Arc GMAW Welding</td>
<td>3.00</td>
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<td>This course combines lecture and lab activities</td>
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<td>to present the Gas Metal Arc Welding (MIG)</td>
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<td>process used extensively by industry with a</td>
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<td>focus on pulse metal transfer. This course</td>
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<td>emphasizes hands-on applications, GMAW pulse arc</td>
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<td>arc equipment, welding procedures, out of</td>
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<td>position welding, with an emphasis on stainless</td>
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<td>and mild steels and safety. Prerequisite: WEL</td>
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<td>422</td>
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<td>WEL 425</td>
<td>Measuring, Layout, and Applied Weld Symbols</td>
<td>1.00</td>
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<td>This course combines lecture and lab activities</td>
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<td>to present basic measuring and layout tools used</td>
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<td></td>
<td>extensively by industry, as well as application</td>
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<td>of basic symbols. It emphasizes hands-on</td>
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<tr>
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<td>applications, accurate measurements techniques</td>
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<td>and proper use of tools and interpretation of</td>
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<td>basic weld symbols.</td>
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WEL 700 - Robotic Welding  4.00
This course introduces students to welding robots and the application of robotics in the welding industry. Topics include the safe use of robotic welders in industry, robot programming fundamentals, interfacing of the welding power source to the robot and basic weldment fixturing. Students will operate an industrial robotic welding system, using computer and teach pendant modes. Prerequisite: WEL 422

WEL 917 - Experimental Course  1.00-4.00
This pilot course is under the supervision of a faculty member and approved by the division chair. This course may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.

WEL 949 - Special Topics  1.00-4.00
This course offers a specialized study or project under the supervision of a faculty member and approved by the division chair. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. Instructor permission required.
Faculty and Administration

Dr. Juline Albert  
Administration  
Vice President of Learning. AA, Western Iowa Tech Community College; BA, Morningside College; MA, University of South Dakota; PhD, University of Nebraska.

Peter Albright  
Computer Networking  
Instructor. CCNA, MCTS and A+ Certification. AAS, Western Iowa Tech Community College, Industry Experience, 10 years.

Julie Anderson  
Student Services  
Educational Coordinator, BA, Briar Cliff University.

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Nursing  
Instructor. BSN, Morningside College; MSN, Nebraska Methodist College. Industry Experience, 6 years.

Dirk Bak  
Motorcycle/Powersports  
Instructor. BA, Northwestern College. Industry Experience, 10 years.

Barbara Baker  
ABE  
Specialist. BA, University of South Dakota.

Craig Barnes  
Video Game Design  
Instructor. AAS, Western Iowa Tech Community College; MS, Bellevue University. Industry Experience, 4 years.

Claire Beekman  
ABE  
Specialist. BA, South Dakota State University.

Tawnya Beermann  
Enrollment Services  
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William Bellows  
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Specialist. BS, Bellevue University.

Jacob Bennett  
Corporate College  
Coordinator. AAS, Western Iowa Tech Community College.

Tina Benton  
Economic Development  
Specialist. BS, Wayne State College.

James Bergenske  
Corporate College  
Coordinator. AAS, Western Iowa Tech Community College.

Kendra Bergenske  
Instruction  
Director, Arts and Sciences. BS, MA, University of South Dakota.

Aaron Boisen  
Residence Life  
Housing Supervisor. AAS, Western Iowa Tech Community College.

Anthony Bos  
Corporate College  
Transportation Specialist.

Kristy Bowman  
Admissions  
Career Navigator. AAS, Western Iowa Tech Community College; BS, MS, Bellevue University.

Brenda S. Bradley  
Human Resources  
Dean of Quality and Human Resources and Board Secretary/Treasurer; AAS, Western Iowa Tech Community College; BS, MA, Bellevue University; SPHR.

Christina Brandon  
Recruitment  
Associate Dean. BS, MA, University of South Dakota.

James Braunschweig  
College Development  
Executive Director. BA, Morningside College.

Dr. Rhonda Briggs  
Psychology  
Instructor. BS, University of Iowa; MA, EdD, University of South Dakota.

Lana Brown  
Digital Media Publishing  
Instructor. AAS, Western Iowa Tech Community College; BS, Skidmore College at Saratoga Springs, New York. Industry Experience, 8 years.

Michael D. Brown  
Student Activities  
Coordinator. BS, Iowa State University; MS, Drake University.

Steve Brown  
Information Technology  
Director of Information Technology Support Services. AAS, Western Iowa Tech Community College.

Dr. Lisa Bryan  
Institutional Research  
Research/Data Specialist. MA, PhD, Kent State University.

Rosanna Burright  
Global Education  
Career Navigator. BS, Gama Filho University.

Michael Cagley  
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Instructional Specialist. MA, Vanderbilt University.

Lily Castro  
TRIO Student Support Services/ABE  
Director. AAS, Western Iowa Tech Community College; BA, Bellevue University; MA, Briar Cliff University.

Nicholas Christiansen  
Information Technology  
Database Administrator. BA, Briar Cliff University.

David Clark  
Corporate College  
Coordinator. AAS, Northwest Iowa Community College.

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Educational Coordinator. AA, Iowa Western Community College; BS, University of Iowa.

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Admissions  
Campus Services Coordinator/Admissions Representative. BA, Chadron State College.

Adrienne Collins  
ABE - Denison  
Assistant HiSET Examiner. BA, Hastings College.

Jennifer Conley  
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Alexx Conyers  
Information Technology  
Network Specialist. AAS, Western Iowa Tech Community College.

Cammy Cother  
EMS  
Specialist. AAS, Western Iowa Tech Community College.

LaDonna Crilly  
EMS  
Program Coordinator, Emergency Medical Services. AAS, Western Iowa Tech Community College; BA, Briar Cliff University.

Sima Dabir  
Instruction  
Director, Arts and Sciences. BS, University of Wyoming; MED, South Dakota State University.

William Darwin, Jr.  
Vocal Music  
Instructor. BA, Briar Cliff University; MM, University of South Dakota. Industry Experience, 4 years.

Nancy Davis  
ABE  
Specialist. BA, Morningside College.

Fran DeJong  
Admissions  
Admissions Representative. BS, Iowa State University.

Ashley Diediker  
Business Operations  
Staff Accountant. BS, Briar Cliff University.

Galen Dirks  
Electrician  
Instructor. Industry Experience, 10 years.

Donald Dorn  
Police Science  
Instructor. AAS, Western Iowa Tech Community College; BS, MS, Bellevue University. Industry Experience, 10 years.

Eddie Dunn  
Distance Learning  
Director. BA, University of South Dakota; MS, Southwest Minnesota State University.

Sharon Dykhsoorn  
Library Services  
Manager. AA, Northeast Tech; BA, Wayne State College; MS, Emporia State University.

Donna Eberly  
Nursing  
Instructor. Diploma, St. Joe School of Nursing; BSN, Briar Cliff University; MS, University of Phoenix. Industry Experience, 14 years.

Joshua Elgert  
Plumbing  
Instructor. AAS, Western Iowa Tech Community College. Industry Experience, 10 years.

Roxanne Ellis  
Talent Search  
Education Coordinator. AAS, Mid-State Technical College; BS, University of Wisconsin-Stout.
Jason Erickson  Corporate College
Corporate College Coordinator.

Cynthia Fachman  ABE
Specialist. BA, St. Catherine University, St. Paul, MN.

Laura Farr  ABE
Specialist. BA, Buena Vista University.

Curt Fiechtner  Safety and Security
Supervisor. BS, Northern State University.

Michelle Fiechtner  Enrollment Services
Disability Services Coordinator. BS, MS, Northern State University.

William Fitch  Corporate College
Welding Specialist. Diploma, Western Iowa Tech Community College.

Kelli Flack  Nursing
Division Chair. Diploma, ADN, Western Iowa Tech Community College; BSN, Briar Cliff University; MSN, University of Phoenix.

Cynthia Flammang  Project Success
Director. BA, Morningside College.

Mellisa Flanigan  Business and Office Support
Instructor. BS, Morningside College. MS, University of South Dakota.

Joseph Funck  Physical Plant
Assistant Director. AAS, Western Iowa Tech Community College.

Jessica Garcia  Denison Campus
Director of Denison Campus and Southern Service Area. MBA, University of Phoenix.

Steven Garcia  Recruitment
Specialist. BS, Morningside College.

James Garvey  Mechanical Engineering
Instructor. AAS, Iowa Lakes Community College. Industry Experience, 10 years.

Michael Gasaway  Culinary Arts
Instructor. AS, Johnson and Wales University. Industry Experience, 10 years.

Janet Gill  Administration
Dean of Students. BA, Morningside College; MBA, Wayne State College. CFA.

Susan Grau  Admissions
Career Navigator. BS, Bellevue University.

Rachelle Green  Information Technology
Help Desk Director. BS, Bellevue University.

Heath Hackett  Information Technology
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Mara Hall  Instruction
Administrative Program Coordinator–Lifelong Learning. BA, Briar Cliff University.

Kelly Hannah  Nursing
Instructor. BSN, Briar Cliff University; MS, University of South Dakota; MSN, South Dakota State University. Industry Experience, 20 years.

Tim Hardyk  Auto Collision Repair Technology
Instructor. Diploma, Western Iowa Tech Community College. Industry Experience, 10 years.

Dr. Diane Hargens  Corporate College & Branch Campuses
Dean. AA, Western Iowa Tech Community College; BA, Buena Vista University; MBA, Bellevue University; Ph.D, Iowa State University.

Corliss A. Hassler  College Effectiveness
Director. BA, MBA, Wayne State College.

Jolleen Heater  ABE - Cherokee
Specialist. MA, Minnesota State University.

Dr. Frank Heffner  Video Game Design
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John Heiden  Auto Collision Repair Technology - Denison
Instructor. AAS, Western Iowa Tech Community College. Industry Experience, 15 years.

Thomas Helzer  Mechanical Engineering Technology
Instructor. AAS, Central Nebraska Technical College; Industry Experience, 13 years.

Rebel Henningfeld  Corporate College
Coordinator. BS, Bellevue University.

Rod Herron  Corporate College
Coordinator. Jail Certification and Law Enforcement Certification, Grand Island Training Academy; Diploma, PCDI Scranton, PA.

Aimee Hoff  Financial Aid
Student Financial Services Supervisor. BS, Morningside College.

Jennifer Hough  Transitional Education
Faculty Development Specialist. MA, University of South Dakota.

Beatrice Houston  Transitional Education
Director. BA, Briar Cliff University; MA, Morningside College.

Amy Hueser  Transitional Education
Faculty Development Coordinator & Assessment Coordinator. BA, Wayne State College; MA, University of Northern Iowa.

Kyle Hueser  Physical Plant and College Safety
Director. BS, Wayne State College.

Jessica Huggenberger  Marketing and Publications
Digital Media Coordinator. BA, Briar Cliff University.

Wendy Ivarson  TRIO–Student Support Services - Cherokee
Educational Coordinator. BA, Northwestern College, MA, University of South Dakota.

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Admissions Representative. BS, New Mexico State University.

Theresa M. Jackson  English
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Brent Jarvis  Corporate College
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Troy A. Jasman  Administration
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Jenny Join  Surgical Technology
Instructor. AAS, Western Iowa Tech Community College. Industry Experience, 10 years.

Michael Jones  Audio, Video and Broadcasting
Instructor. BA, Morningside College. Industry Experience, 10 years.

Angela Kastner  Nursing - Denison
Instructor. BSN, South Dakota State University. MSN, Nebraska Methodist College of Nursing. Industry Experience, 10 years.

Merlyn Kathol  Financial Aid
Director. RCW Certification, Northeast Tech Community College; BS, University of South Dakota; MBA, Wayne State College.

Amber Keinath  Nursing - Denison
Instructor. MSN, Independence University. Industry Experience, 10 years.

Karrie King  Recruitment
Career and Industry Recruitment Specialist. BS, Wayne State College.

Sara Kliett  TRIO–Student Support Services - Denison
Director. Cherokee and Denison. BA, Upper Iowa University. MA, University of South Dakota.

Lora Knaack  Nursing - Cherokee
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Lisa Knecht  Mathematics
Instructor. BS, MA, University of South Dakota.

Bill Koontz  Industrial Electrician
Instructor. AA, Western Iowa Tech Community College; BA, MA, Bellevue University.

Duane Kraayenbrink  Job Training Partners
Job Specialist. BA, Dordt College. MS, University of South Dakota.

John Kraemer  Automotive Technology
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Matthew Laposky  Information Technology
Systems Administrator. AAS, Western Iowa Tech Community College.

Susanna Lee  ABE - Denison
Specialist. MS, Kansas State University.

Helen M. Lewis  English
Instructor. BA, Wilkes College; MA, University of Maryland.

Mike Logan  Information Technology
Dean. BA, Briar Cliff University; MS, Bellevue University.

Mary Madsen  ABE
Specialist. BS, Iowa State University.

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Instructional Program Coordinator. AAS, Western Iowa Tech Community College. Industry Experience, 10 years.

Martha Martin  ABE
Specialist. BA, Asbury College.

Michael May  Corporate College
Coordinator. BA, University of Nebraska.

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Specialist. BA, Buena Vista University.

Brett McCarthy  Culinary Arts
Administrative Program Coordinator. BS, Johnson and Wales University, MS, Murray State University.

Jennifer McCune  Accounting Specialist
Instructor: AA, Western Iowa Tech Community College; BSBA, University of Nebraska at Omaha; MBA, University of South Dakota; CPA, Industry Experience, 10 years.

David McDonald  Electronic Engineering Technology
Instructor. AAS, Western Iowa Tech Community College. Industry Experience, 13 years.

Susan McDonald  Biology
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Teresa McElroy  Enrollment Services
Administrative Program Coordinator. BA, Briar Cliff University. MSW, University of Omaha.

Nancy McMahon  Admissions
Career Navigator. AAS, Western Iowa Tech Community College; BS, Bellevue University.

Heather Mehlihaff  Physical Therapist Assistant
Instructor. MPT, University of Nebraska - Omaha.

Michael Meister  College Effectiveness
Special Projects Director. BA, Iowa State University.

Elba Mercado  ABE
Specialist. BPA, Universidad de Veracruz. BPE, Universidad Pedagógica Nacional.

Linda Mercer  Physical Therapist Assistant
Instructor. BS, Northwestern College; MPT, University of Iowa.

Karilee Meyer  Educational Talent Search - Denison
Educational Coordinator. BS, University of North Florida; MA, Drake University.

Martin Miglionomic  Library
Specialist. MA, University of Northern Iowa.

Joni Miller  Dental Assisting
Instructor. CDA, RDA, EFDA, BS; Diploma, Iowa Western Community College; BS, Bellevue University; Industry Experience, 25 years.

Sandra Mitchell  TRiO/Student Support Services
Educational Coordinator. BS, Western International University; MA, Northern Arizona University.

Darin Moeller  Instruction
Executive Dean. AA, Iowa-Lakes Community College; BA, University of Northern Iowa; MED, Iowa State University.

Lauren Moeller  Upward Bound
Educational Coordinator. BS, University of South Dakota.

Carmen Monk  Medical Assistant
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Dr. Jill Moravek  Sociology
Instructor. BA, Morningside College; MS, PhD, Iowa State University.

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Sandra Mueller  Management Specialist
Instructor. BS, Wayne State College; MS, University of South Dakota. Industry Experience, 10 years.

Carol Muhs  Admissions/Job Training Partners
Career Navigator/Job Specialist. AA, Clinton Community College; BS, MS, Bellevue University.

Mark Munger  KWIT-KOJI Siouxland Public Media
Radio Station Manager. MA, Southwest Texas State University.

Kimberly Murphy  Dental Assisting
Instructor. BS, University of South Dakota. Industry Experience, 8 years.

Dr. Terry Murrell  Administration
President. BS, University of Nebraska-Kearney; MPA, University of Louisville; PhD, University of Nebraska–Lincoln.

Erin Neideberg  Nursing
Instructor. BSN, MSN, Indiana Wesleyan University; Industry Experience, 6 years.

Julie Nelson  Food Service Manager.

Renee Nemitz  Surgical Technician
Instructor. CST, RN, AAS, Western Iowa Tech Community College. Industry Experience, 7 years.

Katherine Newell  Financial Aid
Assistant Director. BA, Briar Cliff University.

Nga Nguyen  Transitional Education/Global Education
Instructional Specialist/Global Education Specialist. MS, University of South Dakota.

Trang Nguyen  Admissions
Career Navigator. BS, Hodges University.

Michael Northrup  Photography
Instructor. BA, Peru State College; MA, University of South Dakota.

Martha Nuno  ABE
Specialist. BA, Briar Cliff University.

Angela O'Dell  Overlook Cafe
Food Service Manager.

Wendy Ohl  Marketing and Publications
Webmaster. AAS, Western Iowa Tech Community College.

Holly Olson  Educational Talent Search & Upward Bound
Director. MS, University of Nebraska at Omaha.

Dr. Frank O'Neill  Sports Medicine
Instructor. AA, Western Iowa Tech Community College; BS, Dr. of Chiropractic; Northwestern Health Sciences University, Minnesota.

Belia Padilla Iryb  Recruitment
Career and Industry Recruitment Specialist. AA, Western Iowa Tech Community College.

Jason Palsma  Financial Aid
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Manueltto "Tito" Parker  Gateway to College
Career Navigator.

Kerry Patchin  Allied Health
Administrative Program Coordinator. AAS, St. Luke's College.

Stephanie Pencil  Pharmacy Technician
Instructor. Diploma Coordinator. AAS, Western Iowa Tech Community College.

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Jackie Plendl  Human Resources
Employee Relations Manager. BS, Morningside College; PHR.

Gary Powell  Police Science
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Todd Rausch  Small Business Development Center
Director. BA, Buena Vista University. MBA, University of Phoenix.

Ben Ricklefs  Auto Collision Repair Technology
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Susan Roemen  Nursing
Instructor. MSN, Nebraska Methodist College. Industry Experience, 10 years.

Andrea Rohlena  Marketing & Publications
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Michael Rohlena  Instruction
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Dr. Gregory Romig  Biology
Instructor. BS, University of Pittsburgh at Johnstown; MS, University of Maine; DA, University of North Dakota.

Dr. Renee Romig  Biology
Instructor. BS, Buena Vista University; PhD, University of Nebraska Medical Center.

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Shane Sampson  Automotive Technology

Martha Sandberg  ABE - Denison
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Reading/Writing Instructional Specialist. MA, EdD, University of South Dakota.

Mark Schmedinghoff  Band Instrument Repair
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Dr. Fred Scoville  Institutional Research
Data and Assessment Analyst. BS, Warren National University; BS, University of Nebraska; MS, Bellevue University. DBA, Columbia Southern University.

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Chris Sewalson  Corporate College
Coordinator. AAS, Western Iowa Tech Community College.

Elizabeth Sheka  Experiential Learning
Executive Director. MA, University of Northern Iowa.

Brian D. Smith  Business Operations
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Matthew Smith  Information Technology
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Steve Smith  KWIT-KOJI Siouxland Public Media
Operations Manager. BS, University of South Dakota.

Ryan Sporrer  Information Systems Security
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Karl Stodden  Welding
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Kevin Stover  Air Conditioning, Heating, and Refrigeration - Denison
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Rita Strom  TRIO-Student Support Services
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Director of Cherokee Campus and Northern Service Area. BA, Dordt College; MS, Ph.D, Iowa State University.

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Laura Taggart  College Now
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Brandy TenHulzen  Alumni
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Jessica Thompson  Nursing
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Dr. Ken Tidwell  Instruction
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Radio Station Engineer.

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Rodney Tjo  Instruction - Denison
Program Coordinator. AAS, Ivy Tech Community College.

James Vail  ABE
Specialist. BS, Morningside College.

Lora VanderZwaag  Admissions
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Sandy Velasquez  Denison Campus
Campus Services Coordinator. BS, Iowa State University.

Hector Villa  ABE
Specialist, JD, University of Guadalajara.

Dr. Erin Volk  Institutional Research
Director of Institutional Research and Resource Development. BS, PhD, State University of New York at Albany.

Lori Vonheeder  Bookstore
Supervisor. BS, Nebraska Wesleyan University.

Misty Wankum  Recruitment
Specialist. BS, Bellevue University.

Steve Warnstadt  Administration
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Jennifer Weber  Early Childhood Education
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Steele Welcher  Residence Life
Director. BA, Morningside College; JD, University of South Dakota Law School.

Roger Wenzel  Air Conditioning, Heating and Refrigeration
Instructor. AAS, Western Iowa Tech Community College; BS, Bellevue University.
Bob Wilcke  Carpentry
Instructor. AA, Western Iowa Tech Community College. Industry Experience, 21 years.

Lynnel Wilcke  Web Design
Instructor. AAS, Western Iowa Tech Community College; BS, Bellevue University.

Carmen Wilson  Corporate College
Project Manager. BS, South Dakota State University. MA, Iowa State University.

Brenda Wimmer  Instruction - Denison
Program Coordinator. BS, Morningside College.

Colt Witt  Instruction

Kevin Woockman  Welding
Instructor. Diploma, Northeast Community College. Industry Experience, 32 years.

Pamela Woolridge  ELL/ABE
Director of ELL and ABE. BS, University of South Dakota; MA, Morningside College.

Stephanie Wright  ABE - Denison
Specialist. BS, Iowa State University.

Beth Wulf  English - Denison
Instructor. BA, Briar Cliff University; MA, University of South Dakota.

Dr. Terry Yi  Global Education
Executive Director. BS, Excelsior College, DC Life Chiropractic College of the West.

James Zuercher  Global Education
Specialist. BS, University of South Dakota; MA, University of South Dakota.
## Support Staff

<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anderson, Jeannie</td>
<td>Secretary - Cherokee</td>
<td></td>
</tr>
<tr>
<td>Angerman, Debra</td>
<td>Accounting Specialist</td>
<td></td>
</tr>
<tr>
<td>Barnes, Kelli</td>
<td>Bookstore Clerk</td>
<td></td>
</tr>
<tr>
<td>Bates, Rebecca</td>
<td>Secretary - College Now</td>
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Advisory Committees

Accounting

Angela LeClair .............................................. Century21 Pro Link
Jo Madson.................................................... Aalts Manufacturing
Peggy Rebstock ............................................ Jebra/WITCC
Randy Kramer .............................................. Kramer & Associates
Tim Terveer .................................................. Kramer & Associates
Treasa Bremmer ........................................... Seaboard Triumph Foods
Troy Jasman .................................................. Western Iowa Tech Community College
Twyla Rosenbaum ....................................... Morningside College/ Western Iowa Tech Community College
Holly Brinehan ............................................ BPI
Erica Carter .................................................. CSADV/Western Iowa Tech Community College

Administrative Assistant – Medical/Medical Assistant

Kay Abbe ..................................................... MW Pain Clinic
Rita Collins .................................................. Western Iowa Tech Community College
Suzanne Schmitt .......................................... Unity Point - CVA
Troy Hedlund .............................................. Sioux City Fire Department
Debbie Hudson ........................................... Siouxland Community Health Center
Reene Reeves .............................................. Family Healthcare
Melanie Loutsch .......................................... Unity Point Health System
Mitzi Kirwan .................................................. Retired
Holly Rivera .................................................. Jones Eye Clinic
Carol Freeman ............................................. Mercy Health Ponca Clinic
Amy McGill .................................................. Western Iowa Tech Community College
Mary Mohni ................................................. Western Iowa Tech Community College
Carmen Monk ................................................ Western Iowa Tech Community College
Beth Wede ................................................... Dr. Dean and Associate
Erica Simpson ............................................. Family Health Care
Mike Jelken .................................................. Prairie Pediatrics
 Roxanne Swanson ........................................... Jackson Recovery Centers
Macie Rubida .............................................. Western Iowa Tech Community College
Karen Iseminger .......................................... UnityPoint Clinic
Mary Olhausen ........................................... CNOS
Rexann Smith .............................................. Western Iowa Tech Community College
Jeanne Knell .............................................. UnityPoint Health - Cardiovascular
Missy Kolar .................................................. Family Healthcare
Sarah Schmidt ............................................. June E Nylen Cancer Center

Administrative Office Management

Amy Coghlan .............................................. Northwest Area Education Agency
Dar Raye Hunwardsen ................................... Seaboard Triumph Foods
Kristi Lehman ............................................. Wells’ Dairy, Inc.
Maggie Loutsch ........................................... Tyson Foods, Inc.
Nancy Watson ............................................. Ho-Chunk, Inc./WITCC
Kim McCormick ......................................... Action Moving
Julie Treinen .................................................. Echo Electric

Advanced Emergency Medical Technician

Gary Brown .............................................. Woodbury County Trauma & Disaster Services
Tom Chartier ................................................ Moviile Ambulance
Dr. Rick Colwell .......................................... Unity Point Health
Karla Coppel ................................................ Burgess Health Center
LaDonna Crilly ............................................ Western Iowa Tech Community College
Dr. Scott Murray .......................................... Mercy Medical Center
Dr. Jeffrey O’Tool .......................................... Unity Point Health
Bill Rosacker .............................................. City of LeMars
Cory Schmadelke .......................................... Western Iowa Tech Community College
Ed Sohm ..................................................... Ida County EMA

Terry Sudria .............................................. Western Iowa Tech Community College
Bob Welte ................................................... Siouxland Paramedics
Dr. Randall Wood ......................................... Unity Point Health
Ailan Faith ................................................... Unity Point St. Luke’s Ed
Steve Mercer ............................................. IA Dept of Public Hlth EMS Bureau
Cammey Jo Cother ....................................... Western Iowa Tech Community College
Mary Jorgensen .......................................... Western Iowa Tech Community College
Mark Nickles ............................................... North Sioux City EMS
Patrick Prorok ........................................... Monona Co. EMS
Mary Chwirka ............................................. Sioux City Fire
Mary Teresa Muckey .................................... Mercy Medical Center
James Haden ............................................. Sioux City Fire

Agrbusiness Technology

Brett Oetken .............................................. Le Mars High School
Bryan Stocking ........................................... Woodbury County FSA
Carrie Thomas ........................................... Tyson Fresh Meats
Dan Witten .............................................. Westwood Community School District
Heather Erickson ......................................... Siouxland Animal Hospital
Janyce Woollard ........................................... WITCC & Northeast Community College
Kay Keenan .................................................. Siouxland Animal Hospital
Krista Jochum ............................................ Farm Credit Service of America
Mark Bohner .............................................. Northwest District Farm Bureau
Mike Moeller ............................................... NA
Steve Merritt .............................................. Siouxland Animal Hospital

Air Conditioning, Heating, and Refrigeration

Jerry Mcknight ........................................... Charleston Inc.
Jim Toben .................................................. C W Suter Services
Dennis Dufault ........................................... C W Suter Services
Alex Quintanilla ......................................... C W Suter Services
Darwin Olson ............................................. McCormick Distributing Company
Dave Peterson ........................................... Peterson Air Conditioning & Heating
Don Rogers .............................................. C W Suter Services
Greg Anderson ........................................... Anderson Heating and Cooling
Peter Sieben ............................................. Kalin’s Indoor Comfort
Rich DeRocher ........................................... DeRocher Services
Rick Farrell ............................................... Farrell’s Heating & Air Conditioning
Rick Mercer ............................................... Dennis Supply Co.
Kevin Stover ............................................. WITCC - Denison Campus
Bill Hanke .................................................. C W Suter Services
Matt Jaminet ............................................. Pinnacle Heating and Cooling
John Lounsbery ......................................... Johnstone Supply
Keith Munter ............................................. Dunwell LLC

Audio Engineering

Jerry Forbes .............................................. WITCC/Jerry’s Electronics
Tony Michaels ............................................ Powell Broadcasting
Rev. Russ Senstad ........................................... Redeemer Lutheran Church
Randy Chapman ........................................... Kingsbury Electronic Systems
Mike Jones ................................................. Western Iowa Tech Community College
Tucker Long .............................................. Western Iowa Tech Community College
Lexie Johnson ............................................. Hard Rock Casino
Ron Sulf ..................................................... Hard Rock Casino
Rob Powers ............................................... I Heart Media
Auto Collision Repair Technology

Pat Bunt……………………………………………………………..Pat’s Body Shop
Bill Harris…………………………………………………..C & J Body Shop
John Heiden…………………………………………………..WITCC Denison
Cindy Koster…………………………………………………..Peterbilt of Sioux City
Barry Kounkel………………………………………………..Division Street Paint & Body
Don Leedom…………………………………………………..Knoepfler Chevrolet
Joe Russell……………………………………………………..Arnold Motor Supply
Mike Duarte…………………………………………………..Sturdevant’s Refinish Supply Center
George Tsiobanos………………………………………….Sioux Body Shop
Chad Waples…………………………………………………..Dreamworks Collision Center
Bill Witt………………………………………………………..National Coatings & Supply
Aaron Petersen……………………………………………..Davies Body Shop

Automotive Technology

Jeremy Bates…………………………………………………..Budget Motors
Kurt Blankenburg…………………………………………..Knoepfler Chevrolet
Randy Briggs………………………………………………….Carquest
Rick Courey…………………………………………………..Alignment Specialists
Mike Dickson………………………………………………..Alignment Specialists
Stuart Eickhoff……………………………………………….Certified Auto Repair
Tim Engle…………………………………………………….A1 Auto Service
Paul Fischer………………………………………………….Le Mars Community Schools
Bill Knoepfler…………………………………………………..Knoepfler Chevrolet
Justin Schlake………………………………………………..Certified Auto Repair
Chad Golladay……………………………………………..Total Motors
Doyle Hoxsie…………………………………………………Certified Auto

Band Instrument Repair

Eric Haizt………………………………………………………..Omaha Public Schools
Bill Matthews………………………………………………..NAPBIRT
Allison Scull…………………………………………………..Swickegood Music of LA
Whitney Turner……………………………………………..Ray’s Mid-Bell Music
Joseph Butkevicius…………………………………………KHS America

Bookkeeping and Office Support

Dar Raye Hunwardsen……………………………………..Seaboard Triumph Foods
Amy Coghlan………………………………………………..Northeast Area Education Agency
Julie Treinen………………………………………………….Echo Electric
Kim McCormick…………………………………………….Action Moving
Kristi Lehman……………………………………………….Wells’ Enterprises, Inc
Maggie Loutsch……………………………………………….Tyson Foods
Nancy Watson……………………………………………….Ho-Chunk/WITCC

Broadcasting and Multimedia Journalism

Keith Bliven …………………………………………………..KTIV
Bridget Green………………………………………………..KTIV
Diana Castillo……………………………………………….KMEG 14/FOX 44
John Curry……………………………………………………KCAU 9
Mary Harnett……………………………………………….KWIT
Dan Delgado………………………………………………...KCAU TV
Bruce Miller…………………………………………………Sioux City Journal

Business Administration

Amy Coghlan………………………………………………..Northwest Area Education Agency
Dar Raye Hunwardsen……………………………………..Seaboard Triumph Foods
Kristi Lehman……………………………………………….Wells’ Enterprises Inc.
Maggie Loutsch…………………………………………….Tyson Foods Inc.
Nancy Watson…………………………………………….Ho-Chunk/WITCC
Kim McCormick…………………………………………….Action Moving
Julie Treinen………………………………………………..Echo Electric

Business Management

Tracy Erdlandson………………………………………………Rush Werks/WITCC
Myrah Favors………………………………………………..WITCC/State Farm Insurance
Chris Ferry ……………………………………………………IBIC Insurance, LLC
Liz Determan…………………………………………………Northwest AEA
Kim Welch …………………………………………………….Eddie Bauer

Certified Personal Trainer

Scott Scholl…………………………………………………..Planet Fitness
Jacque Perez………………………………………………..YMCA
Teri Peterson………………………………………………..Western Iowa Tech Community College
Jay Todd ……………………………………………………….JT Training
Renee Romig………………………………………………..Western Iowa Tech Community College
Katie Holdgrafer………………………………………………YMCA
Angela Smith……………………………………………….NA
Alyce Kass…………………………………………………….NA
Teresa Mohwinkle……………………………………………NA

Cherokee Campus

Joan Ballantyne……………………………………………….Delta Properties
Bill Anderson………………………………………………..Cherokee Area Economic Development
Matt Johnson………………………………………………..Cherokee Regional Medical Center
Jim Flahive ……………………………………………………Hy-Vee
Mark Hecox…………………………………………………..State Farm Insurance
Julie Hering Kent…………………………………………….Cherokee Chamber of Commerce
Sam Kooiker…………………………………………………Cherokee City Admin.
Kimberly Lingenfelter……………………………………….Cherokee Community School District
Barb Messerole………………………………………………City of Aurelia
Kay O’Connor……………………………………………..KCHE Radio
Paul Struck …………………………………………………….Chronicle Times

Coaching

Tom Betz ………………………………………………………..Western Iowa Tech Community College
Brian Collette………………………………………………..Western Iowa Tech Community College
Kevin Nygaard………………………………………………Bandits
Frank O’Neill………………………………………………..Western Iowa Tech Community College
Anthony Peyton…………………………………………….Floyd Valley Health
Sharon Sanders…………………………………………….Western Iowa Tech Community College

Construction

Cody Leners ……………………………………………………NA
Duane VanderPlas…………………………………………Builders First Choice
Jeff MacFarlane…………………………………………Trinity Building Specialties
Mark Kuchel …………………………………………………..Mark Kuchel Construction
Terry Schelme………………………………………………..Homebuilders of Greater Siouxland
Nick Korieski ………………………………………………….NA
Ron Amick……………………………………………………Ron Amick Construction
Darrell Bullock……………………………………………….City of Sioux City
Rich Callahan……………………………………………….Rass Remodeling
Mike Clausen……………………………………………….WJ Midwest Company
Willie Delfs…………………………………………………..Able Homebuilders
John Gunia …………………………………………………….John Gunia Construction
Doug Johnson………………………………………………..Doug Johnson Fine Homes

Culinary

NJzar Templin………………………………………………..Hard Rock Casino
Torrey Brown………………………………………………..Minerva’s
Stephanie Coenen…………………………………………Healthcare Services Group
Alyssa Zeilmer………………………………………………NA
Cyber Security and Digital Crime

Alan Armstrong.............................................. Computer Service Innovations
Brett Stanley.................................................. U.S. Dept. of Homeland Security
Raedawn Johnson.....................,Solutionary
Anthony Schuitema.....................,Riverside Technologies, Inc
Kyle Cronin.................................................. Dakota State University
Scott Lamp.................................................. Iowa Division of Criminal Investigation

Dental Assisting

Shamaynne Frank, D.D.S............................................... NA
Tim DeStiger, D.D.S............................................... NA
Jim Graboski, D.D.S............................................... NA
Jennifer Hadley-Kupfer, R.D.A.................................. NA
Richard Hettinger, D.D.S........................................ NA
Daisy Joaquin-Cardo, C.D.A., R.D.A.......................... NA
Charles (Chip) Kiple, D.D.S..................................... NA
Karl Koelling, D.D.S............................................... NA
Adrienne Valentine, C.D.A., R.D.A., EFDA.............. Sergeant Bluff Dental
Kim Cochran.................................................. NA
Anne Johnson ................................................. Student
Ivy Blenderman ................................................. Student
Sara DeForrest ................................................. Student

Digital Marketing/Marketplace Design

Nathan Anderson ............................................. Bozell
Justin Henriksen............................................ Bozell
Jeff Gordon.................................................... Antidote 71
Keith Jackson.................................................... Wilson Trailer
Jackie McManigal ............................................ Tyson
James Krueger............................................... Click Rain
Rebecca Kemmers........................................ RA Kemppers Photography/WITCC
Wendy Ohl..................................................... Western Iowa Tech Community College
Pete Laskie..................................................... Revival Animal Health
Sam Fleury..................................................... Columbia College
Steve Gordon Jr............................................. RDQLUS Creative
Mac McCallister .............................................. Wells Blue Bunny
Dan Coulander ................................................. Revival Animal Health

Early Childhood Education

Kim Burrack................................................... Sioux City Schools
Heidi Douma.................................................. Northwestern College
Stacy Eldridge ................................................. Mosaic Business Services
JoAnn Gieselman ..................... Siouxland Human Investment Partnership
Keri Hershey............................................... Mary Elizabeth Child Care & Preschool
Jocee Kelly..................................................... Iowa AEYC
Bethany Markoe...............................,Marco Polo's Playhouse
Erika Fluentes........................................Crittenton Center/Stella Sanford Child Dev Ctr
Jenna Andrews.............................................. Beyond the Bell
Monique Ortiz ............................................. Mid-Sioux Opportunity, Inc
Rachael Ostremyer...............Community Action Agency of Siouxland
Jessa Groenheider ...................... Buena Vista University
Lisa Nelson........................................Northeast Nebraska Community Action Partnership
Jennifer Weber ................................ Western Iowa Tech Community College

Education

Jennifer...................................................... Western Iowa Tech Community College
Jane Heider............................................. Mary Elizabeth Child Care & Preschool
JoAnn Gieselman ..................... Siouxland Human Investment Partnership
Erika Fluentes........Crittenton Center/Stella Sanford Child Development Center

Electrician

Jason Bowman............................................. IBEW Local Union 231
Don DeMey........................................................ DeMey Electric
Jeff Eichmann.............................................. Metro Electric of Sioux City
Ryan Henschen........................................ Western Power Co-Op
Dave Mitchell................................................ Mitchell Electric
Alan Nielsen................................................ Nielson Electric
Marvin Pottebaum ....................................... Thompson Electric Co.
Dustin Small ............................................. Thompson Electric Co.
Tom Hast.......................................................... McCellan Electric

Electromechanical Technician

Matt Bird........................................................... BPI
Kyle Blankenburg............................................. Rock Tenn
Matt Dolphin.................................................. Wells' Dairy
Craig Gehring............................................... Van Meter Supply
Machele Hale..................................................... BPI
Mark Hatterman .............................................. Van Meter Supply
Troy Sather..................................................... Fanuc Robotics
Troy Skokan..................................................... Echo Electric Supply
Dustin Small ................................................. Thompson Electric
Austin Van Den Top ........................................ Statile Electric
Jason Glover.................................................... Thompson Automation
Ryan Lias..................................................... Echo Automation & Controls
Nicole Postello..................................................... BPI
Jason Anson..................................................... Interstates Control Systems, Inc.
Alfredo Velasquez........................................ Tyson Foods

Emergency Medical Responder

Gary Brown ......... Woodbury County Trauma & Disaster Services
Tom Chartier................................................. Moville Ambulance
Karl Kopple.................................................. Burgess Health Center
LaDonna Grilly....................Western Iowa Tech Community College
Bill Rosacker.............................................. City of LeMars
Cory Schmadeke........................................ Western Iowa Tech Community College
Ed Sohn...................................................... Ida County EMA
Terry Sudria ........Western Iowa Tech Community College
Bob Welte...................................................... Siouxland Paramedics
Dr. Rick Colwell........................ Unity Point St. Luke's
Dr. Scott Murray...............................Mercy Medical Center
Dr. Jeffrey O'Tool................................. UnityPoint Health
Dr. Randall Wood.................................UnityPoint Health
Alain Faith...................................................... UnityPoint St. Luke's
Steve Mercer..................... IA Dept of Public Hlth/EMS Bureau
Cammy Jo Cother........Western Iowa Tech Community College
Mary Jorgensen........................ Western Iowa Tech Community College
Patrick Prorok..............................Monona County EMS
Mary Chwirka.............................................. Sioux City Fire
Mary Teresa Muckey.....................Mercy Medical Center
James Haden..................................................... Sioux City Fire
Mark Nickles..................................................... North Sioux City EMS
### Emergency Medical Services - Paramedic

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<tr>
<td>Gary Brown</td>
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<td>Karla Copple</td>
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<td>Mark Nickles</td>
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### Emergency Medical Technician

<table>
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<tr>
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<tbody>
<tr>
<td>Gary Brown</td>
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<tr>
<td>Tom Chartier</td>
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<td>James Haden</td>
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### Entrepreneurship

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<tr>
<td>Tracy Erlandson</td>
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<tr>
<td>Myrah Favors</td>
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<tr>
<td>Chris Ferry</td>
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<tr>
<td>Kim Welch</td>
<td>Eddie Bauer</td>
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<tr>
<td>Liz Determan</td>
<td>Northwest AEA</td>
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### Fire Fighter/Paramedic

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<tr>
<td>Dave Hutton</td>
<td>Woodbury County Fire Association</td>
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<tr>
<td>Russ Grossman</td>
<td>Fire Service Training Bureau</td>
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<td>Tom Everett</td>
<td>Sioux City Fire Dept</td>
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<td>Tom Jochum</td>
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<tr>
<td>Anthony Gaul</td>
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### Graphic Design

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<td>Jackie McManigal</td>
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<tr>
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<tr>
<td>Rebecca Kempers</td>
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<tr>
<td>Pete Laskie</td>
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<td>Mac McCallister</td>
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### Hospitality Management

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<tr>
<td>Mike Rashid</td>
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<tr>
<td>Mike Adams</td>
<td>Hard Rock Hotel &amp; Casino</td>
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<tr>
<td>Paul Seaman</td>
<td>Sproutstream</td>
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<tr>
<td>Mark Baltushis</td>
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### Human Resources Management

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<tr>
<td>Brenda Bradley</td>
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<tr>
<td>Rachele Murphy</td>
<td>Great West Casualty Company</td>
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<tr>
<td>Hanna Reinders</td>
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<td>Chris Namanny</td>
<td>Elite Staffing</td>
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<td>Angela Nicodemus</td>
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### Manufacturing

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<tr>
<td>Mike Hittle</td>
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<tr>
<td>Rod Ludvig</td>
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<tr>
<td>Tim Mahal</td>
<td>Wilson Trailer Co</td>
</tr>
<tr>
<td>Wes Peterson</td>
<td>Prince Manufacturing Corp</td>
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<tr>
<td>Michael Potash</td>
<td>Sioux City Compressed Steel Co.</td>
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<tr>
<td>Chuck Swenson</td>
<td>Wells' Enterprises, Inc.</td>
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<tr>
<td>Mark Sloan</td>
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<tr>
<td>Laura Mesz</td>
<td>Sioux City Community Schools</td>
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<tr>
<td>Tom Richards</td>
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### Marketplace Design

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<td>Nathan Anderson</td>
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<td>Jackie McManigal</td>
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### Mechanical Engineering Technology

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Networking Administration and Security

Gwyn Dean ...................................................... Metropolitan Community College
Justin Huffman .................................................. Long Lines
Anthony Schuilteman ........................................ RTI
Matt Smith ...................................................... Western Iowa Tech Community College
Justin Vore ..................................................... Rembrandt Foods
Mary Hunt ...................................................... Sioux City Community Schools

Nursing

Tony Pangburn ................................................. Akron Care Center
Lynn Kuper ...................................................... Bethesda Nursing Home
Amy Dickes ...................................................... Beverly Homes of Hartington
Patty Sandman .................................................. Burgess Health Center
Jessica Davis .................................................... Burgess Health Center
Michelle King .................................................. Canton Good Samaritan Center
Dawn Young .................................................... Careage Hills Care Center
Angela Frederic ................................................ Cherokee Hospital
Connie Mohn ................................................... Cherokee Regional Medical Center
Lisa Huebner .................................................... Cherokee Villa
Joan Hansen .................................................... Community Action Agency of Siouxland Head Start
Denise Petty ..................................................... Correctionville Nursing & Rehab Center
Angie Byers ..................................................... Accura Healthcare of Cherokee
Melissa Wabash ................................................. Countryside Retirement Home
Trish Brambilla ................................................ Elms Health Care Center
Trudi Corey ..................................................... Elmwood Care Center
Kari Smith ....................................................... Embassy
Lorrie Mortensen .............................................. Floyd Valley Healthcare
Kerry Patchin .................................................. Good Samaritan Center/Brentwood
Ronda Martin .................................................. Good Samaritan/Holstein
Jennifer Kuiken .............................................. Happy Siesta
Heather Marks .................................................. Heartland Care
Sherri Brown .................................................... Heritage of Emerson
Kathy Kelfer .................................................... Hillcrest Care Center
Holly Choquette ................................................ Holy Spirit
Karen Mattheys ................................................ Hospice of Siouxland
Ashley McCabe ................................................ Kingsley Nursing & Rehab
Anita Lenzen ................................................... Matney’s Colonial Manor
Teresa Muckey .................................................. Mercy Medical Center
Tracy Larson ................................................... Mercy Medical Center
Donielle Peck .................................................. Mercy Medical Center
Lori Bourassa .................................................. Mercy Medical Center
Lisa Brun ....................................................... Mercy Medical Center
April Leigh ...................................................... Mercy Medical Center
Kristin Sharp .................................................. Mercy Medical Center
Sue Froid ....................................................... Mercy Medical Center
Chris Hansen .................................................. Alcester Care & Rehab Center
Judy Turner .................................................... Northwest Area Education Agency
Kayla Miller ..................................................... Pender Care Center
Lori Jensen ..................................................... Pleasant View
Ashley Schroeten .............................................. Plymouth Manor Care Center
Jenne Goetzinger .............................................. Prairie Estates
Tammy Cronk .................................................. Primghar Rehab & Care Center
Amy Pinkelman .............................................. Regency Square Care Center
Gayle Matzke .................................................. Sanford Care Center
Mary Dermit ................................................... Sioux City Community Schools
Linda Drey ..................................................... Siouxland District Health Dept.
Monica Scaleita ............................................... Siouxland District Health Dept.
Gina Myers ..................................................... Dunes Surgical Hospital
Wendy Lindley .................................................. UnityPoint-St. Luke’s
Sheryl Steuks .................................................. UnityPoint-St. Luke’s
Taffy Zoelle ................................................... UnityPoint-St. Luke’s
Heather Logue ................................................ Sunrise Manor
Chelly Strahmann .............................................. Sunset Knoll
Laura Vanderveen ........................................... Sutherland Care Center
Joelle Hight ................................................... Touchstone
Tara Hasler ..................................................... Wakefield Health Care
Angie Campbell .............................................. Westwood Nursing & Rehabilitation
Teri Peterson .................................................. Western Iowa Tech Community College
Martha Toben .................................................. Good Samaritan Society-LeMars
Heather Badar ............................................... Western Iowa Tech Community College
Erin Neldberg ............................................... Western Iowa Tech Community College
Kelly Hannah ............................................... Western Iowa Tech Community College
Pamela Ives ................................................... Western Iowa Tech Community College
Kelli Flack ..................................................... Western Iowa Tech Community College
Jacob Trierweiler ............................................. Mercy Medical Center
Kristen Ball .................................................... Mercy Medical Center
Ashley Hoppe .................................................. Mercy Medical Center
Abbie Fahrenholz ........................................... Mercy Medical Center
Kent Ernst ..................................................... Mercy Medical Center
Annette Horan ............................................... Mercy Medical Center
Sue Bartholomaus .......................................... Mercy Medical Center
Stephanie Amick ............................................ Pioneer Valley Living & Rehabilitation
Lora Knaack .................................................. Western Iowa Tech Community College
Amy Phipps ................................................... Careage Hills
Kelli Engel ..................................................... Western Iowa Tech Community College
Donna Eberly .................................................. Western Iowa Tech Community College
Jessica Thompson .......................................... Western Iowa Tech Community College
Melissa Johnson ............................................ Hillcrest Care Center
Tani Arnold ..................................................... Accura Healthcare of Sioux City
Cindy Sage .................................................... Avera Sacred Heart Majestic Bluff
Tanya Brogren ................................................ Careage

Paralegal/Legal Assistant

Steve Andersen .............................................. State of Iowa
Patrick Jennings ............................................. Woodbury County District Attorney
Monica Colella .............................................. Goossman Law Firm
Gretchen Cooper ........................................... Law Office of Gretchen A Cooper, PLLC
Emily Pittenger .............................................. Western Iowa Tech Community College
Greg Berenstein ............................................ Western Iowa Tech Community College
Steele Welch .................................................. Western Iowa Tech Community College
Rhonda Eckerman ......................................... NA
Elizabeth Row ................................................ NA
Laury Law ...................................................... NA
Michelle Lewon ............................................. Western Iowa Tech Community College

Pharmacy Technician

Kim Stroeh .................................................... ValuMed Pharmacy
Mary Dermit ................................................... SCCSD
Brett Bieber .................................................. Mercy-Sioux City
Shilo Herrmann ............................................. ValuMed Pharmacy
LeAnna Herrmann ........................................ ValuMed Pharmacy
Sara Wiedenfeld ........................................... University of Iowa
Grant Houseog ................................................ Iowa Poison Control
Mardell Stuerman ........................................... Hy-Vee Pharmacy
Barry Kruessen ............................................. Redler’s Long Term Care
Mike Padomke .............................................. UnityPoint St. Luke’s Pharmacy

Physical Therapist Assistant

Julie Meseck .................................................. Crawford County Memorial Hospital
Marie Nielsen .................................................. Sioux City Physical Therapy
Jody Pickering ................................................ Summit Nursing Home
Dr. Greg Romig .............................................. Western Iowa Tech Community College
Monica Hanson ............................................. Mercy Medical Center
Michelle Grady ............................................. Aegis Holy Spirit
Barbara-Anne Huculak .................................. Western Iowa Tech Community College
Linda Mercer ................................................. Western Iowa Tech Community College
Kevin Poss.......................................................... PT Specialists
Robin Anderson.........................................................ATI PT
Amanda Heilman.................................Western Iowa Tech Community College

Plumbing Systems

Danny Aspleaf ............................................................... NA
Joe Drake .............................................................. Roto Rooter
Josh Elgert ............................................................... Tri State Plumbing
Mark Elgert ............................................................... Tri State Plumbing
Nathaniel Fouk ............................................................ Fouk Brothers
Bret Peterson ........................................................... Plumbing & Construction
Scott Petty .............................................................. Langel's Plumbing & Heating
Angela Schroeder ....................................................... Phoenix Plumbing
Olibio Topete .......................................................... Morningside Plumbing
Ira Lopez ................................................................... Morningside Plumbing

Police Science Technology

Chad Peters .............................................................. Iowa State Patrol
David Amick ................................................................ Woodbury County Sheriff
Doug Weber ............................................................... Osceola County
Mark Kennedy .......................................................... 1st Financial Bank USA
Mark Prosser ............................................................ Storm Lake Police Dept
Marti Reilly .............................................................. Sioux City Police Dept
Corey Utech ............................................................ Hawarden Iowa Police Department
Mike Van Otterloo ...................................................... Plymouth County Sheriff
Stuart Dekkenga ......................................................... NA
Troy Nelson .............................................................. NA
Tina Cleveland .......................................................... Nebraska State Police
John Emswiler .......................................................... City of Dennison
Kevan Vande Vegte .................................................... LeMars Police Department
Charles McCormick .................................................. U.S. Marshals Service
Eddie Thippasouk ..................................................... Sioux City Police Dept.
Doug Young ................................................................ NA

Practical Nursing

Michelle Andersen .................................................... Manning Regional Healthcare Center
Erin Muck ................................................................. Crawford County Memorial Hospital
Rhonda - DON .......................................................... Manning Plaza
Theresa Anderson ........................................................ Children's Imagination Station
Rachel - DON ........................................................... St. Anthony Nursing Home
Cassie Vonnahme ....................................................... Blackhawk Life Care Center
Kadee Sybesma - DON ............................................... Denison Care Center
Neva Summerfield .................................................... Dunlap Nursing & Rehab
Anleatta Bartelson ..................................................... Elm Crest Retirement Center
Doreen Adams ........................................................... Eventide Lutheran Home
Ruth Hoffman ........................................................... Little Flower Haven Nursing & Rehab
Dawn Berrier ............................................................. Manilla Manor
Char Gardner - DON .................................................. Odebolt Nursing & Rehab
Kim Clark - DON ........................................................ Shady Oaks
Billie Byler ............................................................... Thomas Rest Haven
Kim Fineran - DON .................................................... Crawford County Home Health, Hospice, & Public Health
Meg Kohles ............................................................. Rose Vista
Sarah Kelly .............................................................. Maple Heights Nursing Home
Karen Timm ............................................................... St. Anthony Hospital
Katie Towers ............................................................. St. Anthony Hospital
Nou Yang ................................................................. Denison Job Corps
Michelle Starman ...................................................... Manning Child Care Center
Dana Neeman .......................................................... Crawford County Memorial Hospital
Jo Hayes ................................................................. Horn Memorial Hospital
Director of Nursing .................................................. Morningside Care Center
Kathy ................................................................. Twilight Acres
Jennifer Hedberg ....................................................... Willowdale
Brenda Wimmer ....................................................... Western Iowa Tech Community College
Peg Buman .............................................................. St. Anthony Hospital

Professional Photography

John Banasiak ......................................................... University of South Dakota
Amanda Corbin ......................................................... NA
Michael Crowley ....................................................... Briar Cliff University
Michelle Haukap ....................................................... NA
Cory Knedler .......................................................... University of South Dakota
George Lindblade ..................................................... GR Lindblade & CO. Productions
Thomas Magelsen ..................................................... NA
Meghan Martin ........................................................ Metro Electric
Amanda Moody ........................................................ NA
T.J. Nelson .............................................................. Sooland Bobcat
Savannah Ricehill ..................................................... NA
Ashley Sitzmann ..................................................... Lasting Image
Dolores Thompson ................................................... Morningside College
Chris Weil ............................................................... NA
Jeff Schmieg ........................................................... Gamut One Studios
Dewey Koshenina ..................................................... Gamut One Studios
Chris Becker .......................................................... Christopher's Photography
Liz Kahl ................................................................. NA

Professional Photography Technician

John Banasiak ......................................................... University of South Dakota
Chris Becker .......................................................... Christopher's Photography
Amanda Corbin ......................................................... NA
Michael Crowley ....................................................... Briar Cliff University
Michelle Haukap ....................................................... NA
Cory Knedler .......................................................... University of South Dakota
George Lindblade ..................................................... GR Lindblade & CO. Productions
Thomas Magelsen ..................................................... NA
Meghan Martin ........................................................ Metro Electric
Amanda Moody ........................................................ NA
T.J. Nelson .............................................................. Sooland Bobcat
Savannah Ricehill ..................................................... NA
Ashley Sitzmann ..................................................... Lasting Image
Dolores Thompson ................................................... Morningside College
Chris Weil ............................................................... NA
Jeff Schmieg ........................................................... Gamut One Studios
Dewey Koshenina ..................................................... Gamut One Studios
Liz Kahl ................................................................. NA

Robotics and Automation

Matt Bird ................................................................. BPI
Kyle Blankenburg ..................................................... Rock Tern
Matthew Dolphin .................................................... Wells' Dairy
Craig Gehring ........................................................ Van Meter Supply
Nicole Postello ......................................................... BPI
Machele Hale .......................................................... BPI
Mark Hatterman ..................................................... Thompson Teledata
Jeff Meinen ............................................................. Van Meter Supply
Troy Sather ............................................................. Fanuc Robotics
Troy Skokan ............................................................ Echo Electric Supply
Dustin Small ........................................................... Thompson Electric
Austin Van Den Top .................................................. Stateline Electric
Alfredo Velasquez ..................................................... Tyson Foods
Jason Anson ............................................................ Interstates Control Systems Inc.
Jason Glover ........................................................... Thompson Automation
Ryan Lias .............................................................. Echo Automation & Controls

Surgical Technology

Joni Betsworth, S.T., R.N. ........................................... Siouxland Surgery Center
April Leigh ............................................................. Mercy Medical Center
Bridget Davis, B.S.N. ................................................. Mercy Medical Center
Terry Farewell ........................................ St. Luke's Regional Medical Center
Sue Masuen ........................................... Floyd Valley Hospital
Sally Moritz, C.S.T. ................................. Mercy Medical Center
Amy Munchrath, R.N., O.R.S. .......... St. Luke’s Regional Medical Center
Gina Myers, R.N., O.R.S. ...................... Siouxland Surgery Center
Susanne Rosenbaum, C.S.T. .......... Mercy Medical Center
Denise Stansbury ...................................... Siouxland Surgery Center
Dr. Volstedt ........................................... Midlands Clinic
Dawn Bonham ................................. Mercy Medical Center
Julie Backman ........................................ Siouxland Surgery Center
Sam Riordan ................................. Mercy Medical Center
Steven Church ....................................... Unity Point St Luke’s
Holly Trudell ........................................ Student
Sheryl Ford ........................................ Student

Veterinary Assistant

Mark Bohner ........................................ Northwest District Farm Bureau
Krista Jochum ........................................ Farm Credit Service
Steve Merritt ........................................ Siouxland Animal Hospital
Brett Oetken ........................................... Le Mars High School
Bryan Stocking ...................................... Woodbury County FSA
Carrie Thomas ....................................... Tyson Fresh Meats
Dan Witten ............................................. Westwood High School
Janyce Woodard ........................................ WITCC & Northeast Community College
Mike Moeller ........................................ Self Employed & WITCC
Kay Keenan ........................................ Siouxland Animal Hospital
Heather Erickson ...................................... Siouxland Animal Hospital

Video and Media Production

Scott Castle ........................................ Cable One Advertising
Matt Rixner ......................................... KMEG 14/FOX 44
Danielle Feenstra ..................................... KCAU 9
Bruce Miller ........................................ Sioux City Journal
Bob Bosse ........................................ South Dakota Public Broadcasting

Video Game Design - Artistic Track

Patrick Cavanaugh .................................. The Peter Kiewit Institute
Eric Diemer ........................................ Wells’ Blue Bunny
Brenda Garno-Romero University of California, Santa Cruz Loot Drop w/John Romero
Fred Gorham ........................................ Freelance Artist & HDR, Inc
Jeannie Novak ....................................... Novy Unlimited/Cengage Learning
Ben Vu ........................................ SkyVu Entertainment Mobile Games

Welding Technology

Bill Fuller ........................................ Iron Workers Local 121
Dave Furlong ........................................ For-Most Inc.
Casey Jones ........................................... J & J Fittings
Jeff Harms ........................................... Siouxland Trailer Sales
Jon Simonsen ........................................ Simonson Ind. Inc.
Scott Williams ........................................ Iron Workers Local 121
Dave Mc Arthur ................................... Mc Arthur Sheet Metal Works Co.
Rodney Tyo ........................................... WITCC - Denison Campus
Jessica Castillo ....................................... Sabre Communications
Cyndi Harris ........................................ A-Ox
Gary March ........................................... Siouxland Trailer Sales
Jeff Ogren ........................................... Midwest Industries
John Ward .............................................. Praxair
Keith Briggs .......................................... Masaba
Devlin Whiteing ................................... Mid West Industries
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