Accreditation

Hawkeye Community College is accredited by:

The Higher Learning Commission
230 South LaSalle Street, Suite 7-500
Chicago, IL 60604
800-621-7440 or 312-263-0456

2011 Reports
  • Systems Portfolio [pdf]
  • Systems Appraisal Feedback Report [pdf]

2006 Reports
  • Systems Portfolio [pdf]
  • Systems Appraisal Feedback Report [pdf]

Iowa Department of Education
Grimes State Office Building
400 E. 14th and Grand
Des Moines, IA 50319-0146

National Alliance of Concurrent Enrollment Partnership (NACEP)
126 Mallette Street
Chapel Hill, NC 27516
919-593-5205
877-572-8693 (fax)

Individual programs are recognized as follows:

Practical Nursing and Associate Degree Nursing
Approved by the Iowa Board of Nursing
State Capitol Complex
1223 E. Court Ave.
Des Moines, IA 50319.

Dental Assisting and Dental Hygiene
Accredited by the Commission on Dental Accreditation
American Dental Association
211 East Chicago Ave.
Chicago, IL 60611

Medical Laboratory Technology
Accredited by the National Accrediting Agency for Clinical Laboratory Sciences
8410 West Bryn Mawr Ave.
Chicago, IL 60631
Occupational Therapy Assistant
Accredited by the Accreditation Council for Occupational Therapy Education (ACOTE)
ACOTE
c/o Accreditation Department
American Occupational Therapy Association (AOTA)
4720 Montgomery Lane, Suite 200
Bethesda, MD 20814-3449
301-652-AOTA
www.acoteonline.org

Physical Therapist Assistant Program
The Physical Therapist Assistant Program at Hawkeye Community College is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE) of the American Physical Therapy Association, 1111 North Fairfax Street, Alexandria, Virginia 22314; telephone: 703-706-3245; email: accreditation@apta.org; website: www.capteonline.org.

Respiratory Therapy
Accredited by the Commission on Accreditation for Respiratory Care
1248 Harwood Road
Bedford, TX 76021-4244
817-283-2835
Liberal Arts AA and AS Degrees

The Associate of Arts (AA) degree in Liberal Arts to a four-year college. Courses are articulated with Iowa’s Regent universities. Students earning an Associate of Arts degree will meet most general education requirements and be admitted with junior standing.

A variety of general education and elective courses from a wide range of disciplines prepare students to transfer to a public or private four-year college or university. While at Hawkeye, students may choose to follow the guidelines of an emphasis area. Choosing an emphasis area can help guide the choice of electives in a Liberal Arts degree. It may also help students determine if the four-year degree or career track is the right choice.

Hawkeye has established articulation agreements with many four-year public and private colleges within Iowa. Students should work closely with a Hawkeye program advisor to ensure that courses transfer to a specific major or four-year college or university. During their first year at Hawkeye, students should contact the admissions office at the college they plan to transfer to in order to obtain specific program and transfer requirements.

The Associate of Science (AS) degree is designed with a greater emphasis in mathematics and science than the Associate of Arts degree. Students can enter most four-year colleges with a junior standing, but must work closely with a Hawkeye program advisor, as a statewide articulation agreement for an Associate of Science degree does not exist.

Liberal Arts Core

I. Humanities

A. Western Civilization – Provides the framework for the common origins and meaning of European and American ways of life by studying their development throughout history.

B2. Humanities – Philosophy and Religion – Provides a basis of concepts and values that have influenced numerous cultures around the world.

B3. Humanities – Non-Western Cultures – Raises awareness of other cultures, including their diverse economic, political, family, and religious structures.

II. Natural Science and Mathematics

A. Biological Sciences – Establishes a framework of key concepts that deal with health issues, ethical controversies, social responsibility, and environmental quality. The laboratory experience allows the student to be introduced to the process of science.

B. Physical Sciences – Explores the chemical and physical nature of our universe. The laboratory experience introduces the student to the world of scientific technology.

C. Mathematics – Establishes an understanding of various mathematical concepts, such as finances, statistics, algebra, and geometry so that students can use them effectively in their lives.

III. Social Sciences

A. People and Their Relationships – Provides a foundation for understanding mental processes, individual behavior, and social interaction.

B. American Society – Explores the evolution of U.S. government and society and the meaning of these developments to today’s world.

C. Other Social Sciences – Examines the impact of time, place, and major life events on individual behavior and social interaction.

IV. Communications

A. Written Communications – Enhances student ability to study and scrutinize issues while also broadening their reading and writing skills.

B. Oral Communications 3 – Explores ways to improve critical thinking, idea articulation, public speaking, and attentive listening in order to increase understanding and productivity.

V. Social Diversity

Considers ideas of difference and inequality in contemporary U.S. society.

VI. Elective Courses

Courses beyond general education requirements. May include courses from any Category I, II, III or V. Up to 16 technical credit hours may be used as electives.

Philosophy Statement

The Liberal Arts curriculum challenges students with the rigors of classical liberal arts educational opportunities and the current theoretical, technological, and scientific advancements. Students are prepared to take an active role in shaping the evolving standards and practices of today’s society and employment.
Program Outcomes

Students taking liberal arts courses at Hawkeye are not only equipped with a strong foundation for most programs offered by four-year colleges or universities, but they are also able to develop attitudes, values, and skills that will allow them to become constructive adults, both individually and within their communities.

Students receiving an Associate of Arts degree from Hawkeye will have developed the following skills:

- **Communication**: Students will develop speaking, writing, reading, and listening skills.

- **Critical Thinking and Problem Solving**: Students will acquire, evaluate, and analyze information; develop sound reasoning skills; and apply the principles of the scientific method.

- **Quantitative Reasoning**: Students will develop skills in problem-solving, logical thinking, and application of mathematical processes.

- **Community and Global Awareness**: Students will recognize and appreciate diversity, historical viewpoints, and the global perspective.

- **Individual Development**: Students will cultivate ethical values, personal wellness, and personal learning strategies.

- **Artistic Expression**: Students will acquire a global and cultural understanding of the role of the arts, instilling the personal curiosity and skills for creative expression and endeavors.

- **Information Management**: Students will apply technological methods to retrieve, process, and communicate information.
Liberal Arts AA and AS Degrees Admission Requirements

1. Be a high school graduate or equivalent.  
   High School Diploma Verification Process.

2. Apply at Hawkeye.

3. Meet basic skill competencies in reading, writing, and math.

   Basic skill competencies assessment provides information about your academic skills in reading, writing, and math. This information will be used to determine your acceptance, course selection, and registration.

   For general admission to Hawkeye Community College, students must provide assessment scores in reading, math, and writing.

   College success courses may be required if your assessment score indicates additional help is needed.

   For course placement recommendations, based on your assessment score, review the Assessment Scores and Course Equivalences.

   Accepted Assessments
   - ACT
   - COMPASS
   - ASSET
   - SAT
   - ACCUPLACER (effective Spring 2014)

   Previous College Experience
   Assessment may be waived based on previous college course work in reading, math, and writing. Send your official college transcripts to the Admissions office for evaluation.

Hawkeye's Equal Opportunity Statement
Liberal Arts – AA Degree Requirements

Award: Associate of Arts (AA)
Program Start: Fall, Spring, Summer
Enrollment Status: Full-time or part-time

Flexible Scheduling
We know you're busy balancing family and work responsibilities. That's why we've created flexible course options to help you fit your education into the mix.

Students can complete the Associate of Arts degree in Liberal Arts entirely online, in the evening, during the day, or with a combination of online, evening, daytime, and hybrid courses (courses that meet partially face to face and partially online).

You can also arrange your schedule with courses with varying start dates and course lengths so you can focus on fewer classes at one time while completing the same number of credits per semester.

The courses listed below are marked to show you at a glance some of the different formats the course may be offered, however, course offerings change semester by semester. Search My Hawkeye for specific course offerings.

<table>
<thead>
<tr>
<th>O = Online</th>
<th>E = Evening</th>
<th>A = Accelerated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Courses that meet 100% online.</td>
<td>Courses that meet face to face after 5:00pm.</td>
<td>Courses that meet face to face after 5:00pm and partially online in an accelerated 5-week or 10-week format designed for working adults.</td>
</tr>
</tbody>
</table>

It's recommended that students in accelerated courses take only one course at a time due to the intensity of the course format.

View the accelerated course schedule.

Planning Your Class Schedule
Students should work with a Hawkeye program advisor to select courses, make a transfer plan, and review their progress.

You are also encouraged to contact the admissions office at the college to which you plan to transfer during your first year at Hawkeye in order to obtain specific program and transfer requirements.

I. Humanities 9 credits (minimum)
Requires one course from Humanities A and two courses from Humanities B in two different areas 1, 2, or 3.

### Humanities A – Western Civilization 3 credits (minimum)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIS117</td>
<td>Western Civilization I: Ancient and Medieval</td>
<td>O A 3</td>
</tr>
<tr>
<td>HIS118</td>
<td>Western Civilization II: Early Modern</td>
<td>O A 3</td>
</tr>
<tr>
<td>HIS119</td>
<td>Western Civilization III: The Modern Period</td>
<td>O E A 3</td>
</tr>
</tbody>
</table>

**View Course Descriptions**

### Humanities B 6 credits (minimum)

#### 1. Literature and Fine Arts

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART101</td>
<td>Art Appreciation</td>
<td>O E 3</td>
</tr>
<tr>
<td>ART203</td>
<td>Art History I</td>
<td>O 3</td>
</tr>
<tr>
<td>ART204</td>
<td>Art History II</td>
<td>O 3</td>
</tr>
<tr>
<td>DRA107</td>
<td>Theatrical Arts and Society</td>
<td>3</td>
</tr>
<tr>
<td>LIT101</td>
<td>Introduction to Literature (P)</td>
<td>O E 3</td>
</tr>
<tr>
<td>MUS100</td>
<td>Music Appreciation</td>
<td>O A 3</td>
</tr>
</tbody>
</table>

**View Course Descriptions**

#### 2. Philosophy and Religion

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHI101</td>
<td>Introduction to Philosophy</td>
<td>O E A 3</td>
</tr>
<tr>
<td>PHI105</td>
<td>Introduction to Ethics</td>
<td>O E A 3</td>
</tr>
<tr>
<td>REL101</td>
<td>Survey of World Religions</td>
<td>O 3</td>
</tr>
<tr>
<td>REL130</td>
<td>Introduction to Religions of the East</td>
<td>3</td>
</tr>
</tbody>
</table>

**View Course Descriptions**

#### 3. Non-Western Cultures

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLS130</td>
<td>African Cultures *</td>
<td>O 3</td>
</tr>
<tr>
<td>CLS141</td>
<td>Middle Eastern History and Culture *</td>
<td>3</td>
</tr>
<tr>
<td>CLS150</td>
<td>Latin American History and Culture *</td>
<td>O E A 3</td>
</tr>
<tr>
<td>CLS160</td>
<td>East Asian Cultures *</td>
<td>O A 3</td>
</tr>
<tr>
<td>CLS164</td>
<td>Japanese History and Culture *</td>
<td>3</td>
</tr>
<tr>
<td>CLS172</td>
<td>Russian Civilization *</td>
<td>3</td>
</tr>
</tbody>
</table>

**View Course Descriptions**

### II. Natural Science and Mathematics 10 credits (minimum)

Requires one course each from A, B, and C, including one 4-hour science laboratory course. Total of 7 hours from A and B.

#### A. Biological Sciences 3-4 credits (minimum)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO105</td>
<td>Introductory Biology</td>
<td>E 4</td>
</tr>
<tr>
<td>BIO112</td>
<td>General Biology I</td>
<td>4</td>
</tr>
<tr>
<td>BIO113</td>
<td>General Biology II</td>
<td>4</td>
</tr>
<tr>
<td>BIO154</td>
<td>Human Biology</td>
<td>O E A 3</td>
</tr>
</tbody>
</table>
BIO163  Essentials of Anatomy and Physiology  E  4  
BIO168  Human Anatomy and Physiology I with Lab  E  4  
BIO185  Microbiology with lab  E  3  
CNS121  Environmental Conservation ***  O  3  

View Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO163</td>
<td>Essentials of Anatomy and Physiology</td>
<td>E 4</td>
</tr>
<tr>
<td>BIO168</td>
<td>Human Anatomy and Physiology I with Lab</td>
<td>E 4</td>
</tr>
<tr>
<td>BIO185</td>
<td>Microbiology with lab</td>
<td>E 3</td>
</tr>
<tr>
<td>CNS121</td>
<td>Environmental Conservation ***</td>
<td>O 3</td>
</tr>
</tbody>
</table>

B.  Physical Sciences  
3-4 credits (minimum)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM122</td>
<td>Introduction to General Chemistry</td>
<td>E 4</td>
</tr>
<tr>
<td>CHM165</td>
<td>General Chemistry I (P)</td>
<td>4</td>
</tr>
<tr>
<td>ENV115</td>
<td>Environmental Science ***</td>
<td>O  E  A 3</td>
</tr>
<tr>
<td>ENV116</td>
<td>Environmental Science Lab *** (C)</td>
<td>O 1</td>
</tr>
<tr>
<td>GEO131</td>
<td>Physical Geography</td>
<td>E 3</td>
</tr>
<tr>
<td>GEO132</td>
<td>Physical Geography Lab (C)</td>
<td>E 1</td>
</tr>
<tr>
<td>PHS120</td>
<td>Exploring Physical Science (P)</td>
<td>E 4</td>
</tr>
<tr>
<td>PHS142</td>
<td>Principles of Astronomy (P)</td>
<td>E 3</td>
</tr>
<tr>
<td>PHS152</td>
<td>Astronomy (P)</td>
<td>4</td>
</tr>
<tr>
<td>PHY162</td>
<td>College Physics I (P)</td>
<td>4</td>
</tr>
<tr>
<td>PHY212</td>
<td>Classical Physics I (P)</td>
<td>5</td>
</tr>
</tbody>
</table>

View Course Descriptions

C. Mathematics  
Assessment required  
3 credits (minimum)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT110</td>
<td>Math for Liberal Arts (P)</td>
<td>O  E  3</td>
</tr>
<tr>
<td>MAT122</td>
<td>College Algebra (P)</td>
<td>5</td>
</tr>
<tr>
<td>MAT128</td>
<td>Precalculus (P)</td>
<td>4</td>
</tr>
<tr>
<td>MAT134</td>
<td>Trigonometry and Analytic Geometry (P)</td>
<td>3</td>
</tr>
<tr>
<td>MAT156</td>
<td>Statistics (P)</td>
<td>O  E  A 3</td>
</tr>
<tr>
<td>MAT210</td>
<td>Calculus I (P)</td>
<td>O  E  3</td>
</tr>
</tbody>
</table>

View Course Descriptions

III. Social Sciences  
9 credits (minimum)

Requires one course each from A, B, and C.

A. People and Their Relationships

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY111</td>
<td>Introduction to Psychology</td>
<td>O  E  A 3</td>
</tr>
<tr>
<td>SOC110</td>
<td>Introduction to Sociology</td>
<td>O  E  A 3</td>
</tr>
</tbody>
</table>

View Course Descriptions

B. American Society

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIS151</td>
<td>U.S. History to 1877</td>
<td>O  E  3</td>
</tr>
<tr>
<td>HIS152</td>
<td>U.S. History Since 1877</td>
<td>O  E  A 3</td>
</tr>
<tr>
<td>POL111</td>
<td>American National Government</td>
<td>O  3</td>
</tr>
</tbody>
</table>

View Course Descriptions
### C. Topics in Social Sciences

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEO121</td>
<td>World Regional Geography</td>
<td>O 3</td>
</tr>
<tr>
<td>POL121</td>
<td>International Relations</td>
<td>E 3</td>
</tr>
<tr>
<td>POL125</td>
<td>Comparative Government and Politics</td>
<td>O 3</td>
</tr>
<tr>
<td>PSY121</td>
<td>Developmental Psychology</td>
<td>O E 3</td>
</tr>
<tr>
<td>PSY251</td>
<td>Social Psychology (P)</td>
<td>3</td>
</tr>
<tr>
<td>SOC115</td>
<td>Social Problems</td>
<td>O 3</td>
</tr>
<tr>
<td>SOC120</td>
<td>Marriage and Family</td>
<td>O E A 3</td>
</tr>
<tr>
<td>SOC135</td>
<td>Death and Dying</td>
<td>O E 3</td>
</tr>
<tr>
<td>SOC208</td>
<td>Introduction to Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>SOC220</td>
<td>Sociology of Aging</td>
<td>O 3</td>
</tr>
</tbody>
</table>

### IV. Communications

**9 credits (minimum)**

**Written Communications**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG105</td>
<td>Composition I (P)</td>
<td>O E A 3</td>
</tr>
<tr>
<td>ENG106</td>
<td>Composition II (P)</td>
<td>O E A 3</td>
</tr>
</tbody>
</table>

**Oral Communications**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPC101</td>
<td>Fundamentals of Oral Communication</td>
<td>O E A 3</td>
</tr>
</tbody>
</table>

### V. Social Diversity

**3 credits (minimum)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM148</td>
<td>Diversity and the Media</td>
<td>3</td>
</tr>
<tr>
<td>EDU223</td>
<td>Multicultural Education (P) (For Education Emphasis Only)</td>
<td>E 3</td>
</tr>
<tr>
<td>LIT133</td>
<td>Minority Voices in U.S. Literature</td>
<td>E A 3</td>
</tr>
<tr>
<td>PSY262</td>
<td>Psychology of Gender (P)</td>
<td>O 3</td>
</tr>
<tr>
<td>SOC200</td>
<td>Minority Group Relations</td>
<td>O 3</td>
</tr>
<tr>
<td>SOC205</td>
<td>Diversity in America</td>
<td>O E A 3</td>
</tr>
<tr>
<td>WST101</td>
<td>Women's Studies</td>
<td>E 3</td>
</tr>
</tbody>
</table>

### VI. Elective Courses

**22 credits (minimum)**

Courses beyond general education requirements. May include courses from Categories I, II, III, IV, or V.

Choosing an **emphasis area** will help guide your choice of electives. It may also help you determine if the career track is the right choice for you.

### A. Required Elective Course

**1 credit (minimum)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDV108</td>
<td>The College Experience</td>
<td>1</td>
</tr>
<tr>
<td>SDV109</td>
<td>College 101</td>
<td>E 3</td>
</tr>
</tbody>
</table>
### B. Suggested Elective Courses for the Liberal Arts AA Degree

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC131</td>
<td>Principles of Accounting I (P)</td>
<td>O E A 4</td>
</tr>
<tr>
<td>ACC132</td>
<td>Principles of Accounting II (P)</td>
<td>E A 4</td>
</tr>
<tr>
<td>ART120</td>
<td>2-D Design</td>
<td>3</td>
</tr>
<tr>
<td>ART123</td>
<td>3-D Design</td>
<td>3</td>
</tr>
<tr>
<td>ART133</td>
<td>Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART134</td>
<td>Drawing II</td>
<td>3</td>
</tr>
<tr>
<td>ART143</td>
<td>Painting</td>
<td>3</td>
</tr>
<tr>
<td>ART144</td>
<td>Painting II</td>
<td>3</td>
</tr>
<tr>
<td>ART173</td>
<td>Ceramics</td>
<td>3</td>
</tr>
<tr>
<td>ART184</td>
<td>Photography</td>
<td>3</td>
</tr>
<tr>
<td>BCA201</td>
<td>Introduction to Information Systems</td>
<td>O E 3</td>
</tr>
<tr>
<td>BIO151</td>
<td>Nutrition</td>
<td>O E 3</td>
</tr>
<tr>
<td>BIO173</td>
<td>Human Anatomy and Physiology II with Lab (P)</td>
<td>E 4</td>
</tr>
<tr>
<td>BUS102</td>
<td>Introduction to Business</td>
<td>O E 3</td>
</tr>
<tr>
<td>BUS180</td>
<td>Business Ethics</td>
<td>E 3</td>
</tr>
<tr>
<td>BUS183</td>
<td>Business Law</td>
<td>O A 3</td>
</tr>
<tr>
<td>BUS210</td>
<td>Business Statistics (P)</td>
<td>E 3</td>
</tr>
<tr>
<td>BUS230</td>
<td>Quantitative Methods for Business Decision Making (P)</td>
<td>E 3</td>
</tr>
<tr>
<td>CHM132</td>
<td>Introduction to Organic and Biochemistry (P)</td>
<td>4</td>
</tr>
<tr>
<td>CHM175</td>
<td>General Chemistry II (P)</td>
<td>4</td>
</tr>
<tr>
<td>COM140</td>
<td>Introduction to Mass Media</td>
<td>3</td>
</tr>
<tr>
<td>CRJ100</td>
<td>Introduction to Criminal Justice</td>
<td>O E 3</td>
</tr>
<tr>
<td>CRJ120</td>
<td>Introduction to Corrections</td>
<td>O 3</td>
</tr>
<tr>
<td>CRJ200</td>
<td>Criminology</td>
<td>E 3</td>
</tr>
<tr>
<td>CRJ201</td>
<td>Juvenile Delinquency</td>
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<tr>
<td>CRJ233</td>
<td>Probation, Parole, Community-Based Corrections (P)</td>
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<td>CRJ316</td>
<td>Juvenile Justice (P)</td>
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<td>White Collar Crime (P)</td>
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<td>Crime Analysis (P)</td>
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<td>CSC110</td>
<td>Introduction to Computers (P)</td>
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<td>DRA110</td>
<td>Introduction to Film</td>
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<td>Introduction to Economics ***</td>
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<td>ECN120</td>
<td>Principles of Macroeconomics (P)</td>
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<td>ECN130</td>
<td>Principles of Microeconomics (P)</td>
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<td>EDU214</td>
<td>Exploring PK-12 Education (C)</td>
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<tr>
<td>EDU216</td>
<td>Introduction to Teaching</td>
<td>E 3</td>
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<tr>
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<td>Children's Literature</td>
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<td>Educational Psychology (C) (P)</td>
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<tr>
<td>EDU246</td>
<td>Including Diverse Learners</td>
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<tr>
<td>EDU255</td>
<td>Technology in the Classroom (P)</td>
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<td>FLS151</td>
<td>Elementary Spanish I</td>
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<tr>
<td>FLS152</td>
<td>Elementary Spanish II (P)</td>
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<td>Iowa History</td>
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<td>HIS251</td>
<td>U.S. History 1945 to Present (P)</td>
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<td>HIS257</td>
<td>African-American History</td>
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<td>HIS277</td>
<td>History of Women in the U.S. (P)</td>
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<td>HUM140</td>
<td>Shakespeare: Dramatist, Psychologist, Historian</td>
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<td>Women and Literature</td>
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<td>LIT949</td>
<td>Special Topics in Literature (1-3 credits)</td>
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<td>Intermediate Algebra (P)</td>
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<td>Math Reasoning for Teachers I (P)</td>
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<td>MAT219</td>
<td>Calculus III (P)</td>
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<td>Military Survival Skills</td>
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<td>MIL110</td>
<td>Leadership and Personal Development</td>
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<tr>
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<td>Foundations of Tactical Leadership</td>
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<td>Innovative Team Leadership</td>
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<td>MIL122</td>
<td>Leadership in Changing Environment</td>
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<td>MUA120</td>
<td>Applied Piano I **</td>
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<td>MUA319</td>
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<td>Aerobic Fitness I **</td>
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<tr>
<td>PEA117</td>
<td>Bowling I **</td>
<td>1</td>
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<tr>
<td>PEA123</td>
<td>Circuit Training **</td>
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<tr>
<td>PEA125</td>
<td>Indoor Cycling **</td>
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<tr>
<td>PEA150</td>
<td>Powerwalking **</td>
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<tr>
<td>PEA176</td>
<td>Volleyball I **</td>
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<tr>
<td>PEA187</td>
<td>Weight Training I **</td>
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<tr>
<td>PEA191</td>
<td>Pilates **</td>
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<tr>
<td>PEA194</td>
<td>Vinyasa Yoga **</td>
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<tr>
<td>PEA196</td>
<td>Iron Yoga-Pilates Infusion **</td>
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<td>PEC110</td>
<td>Coaching Ethics, Techniques and Theory</td>
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<td>Athletic Development and Human Growth</td>
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<td>PEC123</td>
<td>Anatomy for Coaching</td>
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<td>PEC127</td>
<td>Care and Prevention of Athletic Injuries</td>
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<td>PEH111</td>
<td>Personal Wellness</td>
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<tr>
<td>PEH141</td>
<td>First Aid</td>
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<tr>
<td>PEH266</td>
<td>Leadership Techniques for Fitness Programs</td>
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<tr>
<td>PH1121</td>
<td>Classical/Medieval Philosophy</td>
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<td>PHS152</td>
<td>Astronomy</td>
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<tr>
<td>PHY172</td>
<td>College Physics II <em>(P)</em></td>
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<td>Classical Physics II <em>(P)</em></td>
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<td>PSY261</td>
<td>Human Sexuality</td>
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<tr>
<td>PSY924</td>
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<td>PSY926</td>
<td>Honors Seminar</td>
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<tr>
<td>SDV127</td>
<td>Study Strategies</td>
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<td>SDV131</td>
<td>Career Exploration</td>
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<td>SOC160</td>
<td>Introduction to Social Work</td>
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<td>SOC195</td>
<td>Urban Studies <em>(P)</em></td>
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<td>Cultural Immersion Field Experience ** (1-3 credits)</td>
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<td>SPC122</td>
<td>Interpersonal Communication <em>(P)</em></td>
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<td>SPC132</td>
<td>Group Communication *(P)</td>
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<tr>
<td>XXX924</td>
<td>Honors Project (1-3 credits)</td>
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<tr>
<td>XXX926</td>
<td>Honors Seminar</td>
<td>3</td>
</tr>
</tbody>
</table>

View Course Descriptions

* Meets the Non-Western Cultures requirement at UNI.

** Repeatable: see course description for number of times.

*** CNS121 or ENV115/116 – only one can be taken toward your 7 hours of science.

**** No credit if ECN120 or ECN130 earned

P Must complete a prerequisite.

C Must take a corequisite.
Liberal Arts – AS Degree Requirements

**Award:** Associate of Science (AS)
**Program Start:** Fall, Spring, Summer
**Enrollment Status:** Full-time or part-time

![Printable Tracking Sheets](2013-2014)
2014-2015

### Planning Your Class Schedule

Students should work with a Hawkeye program advisor to select courses, make a transfer plan, and review their progress.

You are also encouraged to contact the admissions office at the college to which you plan to transfer before or during your first year at Hawkeye in order to obtain specific program and transfer requirements.

<table>
<thead>
<tr>
<th>I. Humanities</th>
<th>3 credits (minimum)</th>
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</thead>
<tbody>
<tr>
<td>Requires one course from A, B, C, or D.</td>
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</tbody>
</table>

#### A. Western Civilization

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HIS117</td>
<td>Western Civilization I: Ancient and Medieval</td>
<td>3</td>
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<tr>
<td>HIS118</td>
<td>Western Civilization II: Early Modern</td>
<td>3</td>
</tr>
<tr>
<td>HIS119</td>
<td>Western Civilization III: The Modern Period</td>
<td>3</td>
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</tbody>
</table>

View Course Descriptions

#### B. Literature and Fine Arts

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ART101</td>
<td>Art Appreciation</td>
<td>3</td>
</tr>
<tr>
<td>ART203</td>
<td>Art History I</td>
<td>3</td>
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<tr>
<td>ART204</td>
<td>Art History II</td>
<td>3</td>
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<tr>
<td>DRA107</td>
<td>Theatrical Arts and Society</td>
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<td>LIT101</td>
<td>Introduction to Literature <em>(P)</em></td>
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<tr>
<td>MUS100</td>
<td>Music Appreciation</td>
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</table>

View Course Descriptions

#### C. Philosophy and Religion

<table>
<thead>
<tr>
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<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PHI101</td>
<td>Introduction to Philosophy *</td>
<td>3</td>
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<tr>
<td>PHI105</td>
<td>Introduction to Ethics *</td>
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<tr>
<td>REL101</td>
<td>Survey of World Religions</td>
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<td>REL130</td>
<td>Introduction to Religions of the East</td>
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View Course Descriptions

#### D. Non-Western Cultures
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CLS130</td>
<td>African Cultures</td>
<td>3</td>
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<tr>
<td>CLS141</td>
<td>Middle Eastern History and Culture</td>
<td>3</td>
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<tr>
<td>CLS150</td>
<td>Latin American History and Culture</td>
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<td>CLS160</td>
<td>East Asian Cultures</td>
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<tr>
<td>CLS164</td>
<td>Japanese History and Culture</td>
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</tr>
<tr>
<td>CLS172</td>
<td>Russian Civilization</td>
<td>3</td>
</tr>
</tbody>
</table>

**View Course Descriptions**

**II. Natural Science and Mathematics**

Requires one course from each area A, B, and C. Need 7 hours from A and B, including one 4-hour science laboratory courses.

Students must work with their advisor to determine the math and science sequences needed to transfer to the program and university of their choice.

A. **Biological Sciences**

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIO105</td>
<td>Introductory Biology</td>
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<tr>
<td>BIO112</td>
<td>General Biology I</td>
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<tr>
<td>BIO113</td>
<td>General Biology II</td>
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<td>BIO154</td>
<td>Human Biology</td>
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<tr>
<td>BIO163</td>
<td>Essentials of Anatomy and Physiology</td>
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<tr>
<td>BIO168</td>
<td>Human Anatomy and Physiology I with Lab</td>
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<tr>
<td>BIO173</td>
<td>Human Anatomy and Physiology II with Lab (P)</td>
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<tr>
<td>BIO185</td>
<td>Microbiology with lab</td>
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<tr>
<td>CNS121</td>
<td>Environmental Conservation ***</td>
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**View Course Descriptions**

B. **Physical Sciences**

<table>
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<tr>
<td>CHM122</td>
<td>Introduction to General Chemistry</td>
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<tr>
<td>CHM132</td>
<td>Introduction to Organic and Biochemistry (P)</td>
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<tr>
<td>CHM165</td>
<td>General Chemistry I (P)</td>
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<tr>
<td>CHM175</td>
<td>General Chemistry II (P)</td>
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<td>ENV115</td>
<td>Environmental Science ***</td>
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<td>ENV116</td>
<td>Environmental Science Lab *** (C)</td>
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<td>GEO131</td>
<td>Physical Geography</td>
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<td>GEO132</td>
<td>Physical Geography Lab (C)</td>
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<td>PHS120</td>
<td>Exploring Physical Science (P)</td>
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<td>PHS142</td>
<td>Principles of Astronomy (P)</td>
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<td>PHS152</td>
<td>Astronomy (P)</td>
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<td>PHY162</td>
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<td>PHY222</td>
<td>Classical Physics II (P)</td>
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</tbody>
</table>

**View Course Descriptions**
### MAT 110 Math for Liberal Arts (P)
- Credit: 3

### MAT 122 College Algebra (P)
- Credit: 5

### MAT 128 Precalculus (P)
- Credit: 4

### MAT 134 Trigonometry and Analytic Geometry (P)
- Credit: 3

### MAT 156 Statistics (P)
- Credit: 3

### MAT 210 Calculus I (P)
- Credit: 4

### MAT 216 Calculus II (P)
- Credit: 4

### MAT 219 Calculus III (P)
- Credit: 4

## III. Social Sciences
6 credits (minimum)

### A. People and Their Relationships
3 credits (minimum)

- **PSY 111** Introduction to Psychology
  - Credit: 3

- **SOC 110** Introduction to Sociology
  - Credit: 3

### B. American Society
3 credits (minimum)

- **HIS 151** U.S. History to 1877
  - Credit: 3

- **HIS 152** U.S. History Since 1877
  - Credit: 3

- **POL 111** American National Government
  - Credit: 3

### IV. Communications
9 credits (minimum)

### A. Written Communications
6 credits (minimum)

- **ENG 105** Composition I (P)
  - Credit: 3

- **ENG 106** Composition II (P)
  - Credit: 3

### B. Oral Communications
3 credits (minimum)

- **SPC 101** Fundamentals of Oral Communication
  - Credit: 3

### V. Social Diversity
3 credits (minimum)

- **COM 148** Diversity and the Media
  - Credit: 3

- **LIT 133** Minority Voices in U.S. Literature (P) (+)
  - Credit: 3

- **PSY 262** Psychology of Gender (P) (+)
  - Credit: 3

- **SOC 200** Minority Group Relations
  - Credit: 3
<table>
<thead>
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<th>Course Title</th>
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<tbody>
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<td>SOC205</td>
<td>Diversity in America (+)</td>
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<tr>
<td>WST101</td>
<td>Women's Studies (+)</td>
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**VI. Distributed Requirement**

Select 4 credits from categories I, II, III, IV, or V.

**VII. Elective Courses**

Courses beyond general education requirements. May include courses from Categories I, II, III, IV, or V. Up to 16 technical credits may be used as electives. Additional classes may be available. For more information, contact a program advisor.

**A. Required Elective Course**

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<td>The College Experience</td>
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<td>College 101</td>
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**B. Suggested Elective Courses for the Liberal Arts AS Degree**

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<td>Principles of Accounting II (P)</td>
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<tr>
<td>AGA114</td>
<td>Principles of Agronomy °</td>
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<td>AGA154</td>
<td>Fundamentals of Soil Science °</td>
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<td>AGA214</td>
<td>Cash Grains °</td>
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<td>AGA284</td>
<td>Pesticide Application Certification °</td>
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<td>AGA376</td>
<td>Integrated Pest Management °</td>
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<td>AGB101</td>
<td>Agricultural Economics °</td>
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<td>AGB111</td>
<td>Agriculture Enterprise Lab °</td>
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<td>AGB235</td>
<td>Introduction to Agriculture Markets °</td>
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<td>AGB303</td>
<td>Agriculture Leadership °</td>
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<td>AGB331</td>
<td>Entrepreneurship in Agriculture °</td>
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<td>AGB336</td>
<td>Agricultural Selling °</td>
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<td>AGB466</td>
<td>Agricultural Finance °</td>
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<td>AGC103</td>
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<td>Introduction to Turfgrass Management</td>
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<td>AGH119</td>
<td>Herbaceous Plant Materials °</td>
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<td>AGH122</td>
<td>Woody Plant Materials °</td>
<td>2</td>
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<tr>
<td>AGH161</td>
<td>Irrigation Systems °</td>
<td>3</td>
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<tr>
<td>AGH211</td>
<td>Advanced Turfgrass Management °</td>
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<td>AGH221</td>
<td>Principles of Horticulture °</td>
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<td>AGH222</td>
<td>Plant Propagation °</td>
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<td>AGH280</td>
<td>Botany for Horticulture °</td>
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<td>Plant Propagation II</td>
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<td>Precision Farming Systems</td>
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<td>Survey of the Animal Industry</td>
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<td>Issues Facing Animal Science</td>
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<td>AGS218</td>
<td>Domestic Animal Physiology (P)</td>
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<td>Foods of Animal Origin (P)</td>
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<td>Livestock Evaluation</td>
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<td>Animal Nutrition</td>
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<td>ART143</td>
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<td>ART173</td>
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<td>ART184</td>
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<td>BCA201</td>
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<td>Nutrition</td>
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<td>BUS210</td>
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<td>DRA110</td>
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<td>ECN120</td>
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<td>ECN130</td>
<td>Principles of Microeconomics</td>
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<td>ENG221</td>
<td>Creative Writing (C)</td>
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<td>Iowa History</td>
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<td>U.S. History 1945 to Present (P)</td>
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<td>HIS257</td>
<td>African-American History</td>
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<td>History of Women in the U.S. (<strong>P</strong>)</td>
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<td>HUM130</td>
<td>Holocaust Perspectives: Confronting the Future **</td>
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<td>LIT189</td>
<td>Women and Literature</td>
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<td>LIT949</td>
<td>Special Topics in Literature **</td>
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<td>MAT102</td>
<td>Intermediate Algebra (<strong>P</strong>)</td>
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<td>MGT101</td>
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<td>MIL110</td>
<td>Military Survival Skills **</td>
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<td>Foundations of Tactical Leadership</td>
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<td>MIL122</td>
<td>Innovative Team Leadership</td>
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<td>MKT110</td>
<td>Leadership in Changing Environment</td>
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<td>MUA319</td>
<td>Applied Piano I</td>
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<td>MUA319</td>
<td>Applied Voice **</td>
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<td>Music Fundamentals</td>
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<td>Bowling I **</td>
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<td>PEA123</td>
<td>Circuit Training **</td>
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<tr>
<td>PEA125</td>
<td>Indoor Cycling **</td>
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<td>PEA150</td>
<td>Powerwalking **</td>
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<td>PEA176</td>
<td>Volleyball I **</td>
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<td>PEA187</td>
<td>Weight Training I **</td>
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<td>PEA191</td>
<td>Pilates **</td>
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<td>PEA194</td>
<td>Vinyasa Yoga **</td>
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<tr>
<td>PEA196</td>
<td>Iron Yoga-Pilates Infusion</td>
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<td>PEC110</td>
<td>Coaching Ethics, Techniques and Theory</td>
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<tr>
<td>PEC115</td>
<td>Athletic Development and Human Growth</td>
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<td>Anatomy for Coaching</td>
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<tr>
<td>PEC127</td>
<td>Care and Prevention of Athletic Injuries</td>
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<td>Personal Wellness</td>
<td>3</td>
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<td>PEH141</td>
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<tr>
<td>PHI121</td>
<td>Classical/Medieval Philosophy</td>
<td>3</td>
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<tr>
<td>POL121</td>
<td>International Relations</td>
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<td>POL125</td>
<td>Comparative Government and Politics</td>
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<td>PSY121</td>
<td>Developmental Psychology</td>
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<td>PSY241</td>
<td>Abnormal Psychology (<strong>P</strong>)</td>
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<td>Social Psychology (<strong>P</strong>)</td>
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<td>PSY261</td>
<td>Human Sexuality</td>
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<td>SDV127</td>
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<tr>
<td>SOC115</td>
<td>Social Problems</td>
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<tr>
<td>SOC120</td>
<td>Marriage and Family</td>
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<tr>
<td>SOC135</td>
<td>Death and Dying</td>
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<tr>
<td>SOC160</td>
<td>Introduction to Social Work</td>
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<tr>
<td>SOC195</td>
<td>Urban Studies <em>(P)</em></td>
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<td>SOC208</td>
<td>Introduction to Cultural Anthropology</td>
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<tr>
<td>SOC220</td>
<td>Sociology of Aging</td>
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<td>SOC850</td>
<td>Cultural Immersion Field Experience **</td>
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<td>SPC122</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>SPC132</td>
<td>Group Communication</td>
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<td>XXX924</td>
<td>Honors Project</td>
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<tr>
<td>XXX926</td>
<td>Honors Seminar</td>
<td>3</td>
</tr>
</tbody>
</table>

View Course Descriptions

* Meets the Ethics requirement at ISU for College of Agriculture.

** Repeatable: see course description for number of times.

*** CNS121 or ENV115/116 – only one can be taken toward your 7 hours of science requirements.

**** No credit if ECN120 or ECN130 earned

+ Meets the Diversity requirement at ISU for College of Agriculture.

° Other AGP, AGB, AGA, AGS, and AGH transfer classes may be taken. Please contact your program advisor.

P Must complete a prerequisite.

C Must take a corequisite.
Emphasis Area – Communications

If you are interested in completing a bachelor’s degree in Communications you should consider taking 12 credit hours from the courses listed below as part of your AA degree in Liberal Arts.

Planning Your Class Schedule
Students should consult with an advisor in Student Services or a faculty advisor to select courses, make a transfer plan, and periodically review their progress towards their degree completion.

Students are also encouraged to contact the admissions office at the college to which they plan to transfer during their first year at Hawkeye in order to obtain specific program and transfer requirements.

Not all courses may be required for or transfer to your future major.

<table>
<thead>
<tr>
<th>Communications Transfer Courses</th>
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<tbody>
<tr>
<td>COM140 Introduction to Mass Media</td>
<td>3</td>
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<tr>
<td>COM148 Diversity and the Media</td>
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<tr>
<td>SPC120 Intercultural Communications</td>
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</tr>
<tr>
<td>SPC122 Interpersonal Communication</td>
<td>3</td>
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<tr>
<td>SPC132 Group Communication</td>
<td>3</td>
</tr>
<tr>
<td>SPC140 Oral Interpretation</td>
<td>3</td>
</tr>
</tbody>
</table>

View Course Descriptions

Career Opportunities
The following are some of the career opportunities you can pursue in Communications:

- Public Relations Specialist
- Teacher: Debate/Speech
- Advertising
- Public Information Officer
- Human Resources

Find employment in many industries such as:

- government
- business
- not-for-profit organizations
- education
- manufacturing
- politics

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**Emphasis Area – English and Literature**

If you are interested in completing a bachelor’s degree in English and Literature you should consider taking 12 credit hours from the courses listed below as part of your AA degree in Liberal Arts.

**Planning Your Class Schedule**

Students should consult with an advisor in Student Services or a faculty advisor to select courses, make a transfer plan, and periodically review their progress towards their degree completion.

Students are also encouraged to contact the admissions office at the college to which they plan to transfer during their first year at Hawkeye in order to obtain specific program and transfer requirements.

Not all courses may be required for or transfer to your future major.

<table>
<thead>
<tr>
<th>English and Literature Courses</th>
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<tbody>
<tr>
<td>COM763 Introduction to Professional Writing</td>
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<td>ENG221 Creative Writing</td>
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<tr>
<td>HUM140 Shakespeare: Dramatist, Psychologist, Historian</td>
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<tr>
<td>LIT101 Introduction to Literature</td>
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<tr>
<td>LIT133 Minority Voices in U.S. Literature</td>
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<td>LIT189 Women and Literature</td>
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<tr>
<td>LIT949 Special Topics in Literature</td>
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</table>

**Career Opportunities**

Skills gained in the English and Literature emphasis area can be easily applied to many career areas including:

- Publishing
- Copy Editing
- Publications
- The Arts
- Advertising
- Journalism

[View Course Descriptions]
Emphasis Area – Fine Arts

If you are interested in completing a bachelor’s degree in Fine Arts you should consider taking 12 credit hours from the courses listed below as part of your AA degree in Liberal Arts.

Planning Your Class Schedule

Students should consult with an advisor in Student Services or a faculty advisor to select courses, make a transfer plan, and periodically review their progress towards their degree completion.

Students are also encouraged to contact the admissions office at the college to which they plan to transfer during their first year at Hawkeye in order to obtain specific program and transfer requirements.

Not all courses may be required for or transfer to your future major.

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<tr>
<th>Fine Arts Courses</th>
<th>Credit Hours</th>
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<tr>
<td>ART101 Art Appreciation</td>
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<tr>
<td>ART133 Drawing</td>
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<tr>
<td>ART134 Drawing II</td>
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<tr>
<td>ART143 Painting</td>
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<tr>
<td>ART144 Painting II</td>
<td>3</td>
</tr>
<tr>
<td>ART184 Photography</td>
<td>3</td>
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<tr>
<td>ART203 Art History I</td>
<td>3</td>
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<tr>
<td>ART204 Art History II</td>
<td>3</td>
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<tr>
<td>MUA120 Applied Piano I</td>
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<tr>
<td>MUS100 Music Appreciation</td>
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</table>

Career Opportunities

The following are some of the career opportunities you can pursue in Fine Arts:

- Art Consultant
- Teacher
- Events Planner
- Program Coordinator
- Advertising
- Art Therapy

Program Contacts

Department Secretary
Deb Hacker
Black Hawk Hall 222
319-296-4007
Email me

Program Faculty
Kim Behm
Black Hawk Hall 231
319-296-2329 ext.1632
Email me

Student Services Advisors
Lisa Ciesielski
Student Services
Hawkeye Center
Upper Level
319-296-2329 ext.1727
Email me

Lacy Knipper
Student Services
Hawkeye Center
Upper Level
319-296-2329 ext.1086
Email me
Emphasis Area – Global Studies

The Global Studies program provides students with the opportunity to study international affairs from a variety of disciplinary perspectives.

If you are interested in completing a bachelor’s degree in Global Studies you should consider taking 12 credit hours from the courses listed below as part of your AA degree in Liberal Arts.

Planning Your Class Schedule

Students should consult with an advisor in Student Services or a faculty advisor to select courses, make a transfer plan, and periodically review their progress towards their degree completion.

Students are also encouraged to contact the admissions office at the college to which they plan to transfer during their first year at Hawkeye in order to obtain specific program and transfer requirements.

Not all courses may be required for or transfer to your future major.

A. Choose three courses with different prefixes

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<tr>
<td>CLS130</td>
<td>African Cultures -OR-</td>
<td>3</td>
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<tr>
<td>CLS141</td>
<td>Middle Eastern History and Culture -OR-</td>
<td>3</td>
</tr>
<tr>
<td>CLS150</td>
<td>Latin American History and Culture -OR-</td>
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<td>CLS160</td>
<td>East Asian Cultures -OR-</td>
<td>3</td>
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<tr>
<td>CLS164</td>
<td>Japanese History and Culture -OR-</td>
<td>3</td>
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<tr>
<td>CLS172</td>
<td>Russian Civilization</td>
<td>3</td>
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<tr>
<td>GEO121</td>
<td>World Regional Geography</td>
<td>3</td>
</tr>
<tr>
<td>HIS119</td>
<td>Western Civilization III: The Modern Period</td>
<td>3</td>
</tr>
<tr>
<td>POL121</td>
<td>International Relations -OR-</td>
<td>3</td>
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<td>POL125</td>
<td>Comparative Government and Politics</td>
<td>3</td>
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<tr>
<td>REL101</td>
<td>Survey of World Religions -OR-</td>
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<td>REL130</td>
<td>Introduction to Religions of the East</td>
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View Course Descriptions

B. Choose two courses from the list below

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<td>FLS151</td>
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<td>FLS152</td>
<td>Elementary Spanish II</td>
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<tr>
<td>HIS117</td>
<td>Western Civilization I: Ancient and Medieval</td>
<td>3</td>
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<td>HIS118</td>
<td>Western Civilization II: Early Modern</td>
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<tr>
<td>Course Code</td>
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<td>PHI105</td>
<td>Introduction to Ethics</td>
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<td>SOC205</td>
<td>Diversity in America</td>
<td>3</td>
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<tr>
<td>SOC208</td>
<td>Introduction to Cultural Anthropology</td>
<td>3</td>
</tr>
</tbody>
</table>

**Career Opportunities**

- International banking
- International trade specialist
- Foreign correspondent
- Customs/Immigration officer
- Lobbyist
- Teacher
- Government relations
- Business trade
- Nonprofit work
- International media
- Peace Corps/Missionary
- Customs/Immigration specialist
Emphasis Area – History

If you are interested in completing a bachelor’s degree in History you should consider taking 12 credit hours from the courses listed below as part of your AA degree in Liberal Arts.

Planning Your Class Schedule

Students should consult with an advisor in Student Services or a faculty advisor to select courses, make a transfer plan, and periodically review their progress towards their degree completion.

Students are also encouraged to contact the admissions office at the college to which they plan to transfer during their first year at Hawkeye in order to obtain specific program and transfer requirements.

Not all courses may be required for or transfer to your future major.

<table>
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<tr>
<th>History Courses</th>
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<tr>
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<td>GEO121 World Regional Geography -OR-</td>
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<tr>
<td>HIS117 Western Civilization I: Ancient and Medieval -OR-</td>
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<td>HIS118 Western Civilization II: Early Modern -OR-</td>
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<tr>
<td>HIS119 Western Civilization III: The Modern Period</td>
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<tr>
<td>HIS151 U.S. History to 1877 -OR-</td>
<td>3</td>
</tr>
<tr>
<td>HIS152 U.S. History Since 1877</td>
<td>3</td>
</tr>
<tr>
<td>HIS201 Iowa History -OR-</td>
<td>3</td>
</tr>
<tr>
<td>HIS251 U.S. History After 1945 -OR-</td>
<td>3</td>
</tr>
<tr>
<td>HIS257 African-American History -OR-</td>
<td>3</td>
</tr>
<tr>
<td>HIS277 History of Women in the U.S.</td>
<td>3</td>
</tr>
</tbody>
</table>

View Course Descriptions

Career Opportunities

- Historians as Educators in schools, historic sites, and museums.

- Historians as Researchers in museums, historical organization, history preservation, and think tanks.

- Historians as Communicators as documentary editors, information managers, archivists, record and information managers.

- Historians as Advocates in the legal profession, legislative staff work, and foundations.

- Historians in Business as corporate historians, and as historians in nonprofit associations.
Emphasis Area – Mathematics

Mathematics is a field of study which is known for its role in developing critical thinking. Students with strong mathematical backgrounds and understanding enjoy a wide range of career choices as well as exceptional employability.

If you are interested in completing a bachelor’s degree in Mathematics, consider taking your calculus course(s) at Hawkeye as part of your AA degree in Liberal Arts.

Planning Your Class Schedule

Students should consult with an advisor in Student Services or a faculty advisor to select courses, make a transfer plan, and periodically review their progress towards their degree completion.

Students are also encouraged to contact the admissions office at the college to which they plan to transfer during their first year at Hawkeye in order to obtain specific program and transfer requirements.

Not all courses may be required for or transfer to your future major.

The lowest-level math course which is counted towards a mathematics major or minor at a transfer institution is Calculus I. Hawkeye offers Calculus I, II, and III as well as a thorough list of prerequisite courses.

### Mathematics Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT210</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>(Math ACT 27; COMPASS Trigonometry 51-100)</td>
<td></td>
</tr>
<tr>
<td>MAT216</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MAT219</td>
<td>Calculus III</td>
<td>4</td>
</tr>
</tbody>
</table>

View Course Descriptions

### Calculus Preparation

If you do not meet the minimum ACT or COMPASS scores for Calculus I, you can take the following prerequisite courses to meet the minimum requirements. **We strongly recommend you work with an advisor or program faculty to determine your appropriate placement.**

Placement is based upon your ACT or COMPASS test scores; or the completion of prerequisite courses at other institutions.

Calculus preparation courses will not count as part of your mathematics major or minor at a transfer institution.

### Calculus Preparation – Path 1

Recommended for students who have never taken trigonometry.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT102</td>
<td>Intermediate Algebra</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>(Math ACT 19; COMPASS Algebra 42-65)</td>
<td></td>
</tr>
</tbody>
</table>
MAT122 College Algebra
(Math ACT 24; COMPASS College Algebra 31-50)
5

MAT134 Trigonometry and Analytic Geometry
(Math ACT 25; COMPASS Trigonometry 31-50)
3

Calculus Preparation – Path 2

MAT128 Precalculus
(Math ACT 25; COMPASS Trigonometry 31-50)
4

Career Opportunities
An undergraduate degree in mathematics can lead to careers in:

- government
- business
- secondary teaching
- life science
- physical science
- actuarial science
- public relations
- banking
- police science

Graduate study is advisable for some business and governmental positions and for college teaching or research.
Emphasis Area – Media Studies

The Media Studies emphasis area helps to critically examine all types of media, including film, Television, advertising, journalism and digital media to understand how it impacts and is impacted by society.

If you are interested in completing a bachelor’s degree in media studies you should consider taking 12 credit hours from the courses listed below as part of your AA degree in Liberal Arts.

Planning Your Class Schedule

Students should consult with an advisor in Student Services or a faculty advisor to select courses, make a transfer plan, and periodically review their progress towards their degree completion.

Students are also encouraged to contact the admissions office at the college to which they plan to transfer during their first year at Hawkeye in order to obtain specific program and transfer requirements.

Not all courses may be required for or transfer to your future major.

<table>
<thead>
<tr>
<th>Media Studies Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM140 Introduction to Mass Media</td>
<td>3</td>
</tr>
<tr>
<td>COM148 Diversity and the Media</td>
<td>3</td>
</tr>
<tr>
<td>DRA107 Theatrical Arts and Society</td>
<td>3</td>
</tr>
<tr>
<td>DRA110 Introduction to Film</td>
<td>3</td>
</tr>
</tbody>
</table>

View Course Descriptions

Career Opportunities

The following are some of the career opportunities you can pursue in Media Studies:

- Public Relations
- Advertising
- Marketing
- Broadcast Journalist
- Film or television critic
Emphasis Area – Philosophy and Religion

The Philosophy and Religion emphasis area provides training in critical thinking skills that is the basis for many professions. Jobs may require additional training in specialized knowledge.

If you are interested in completing a bachelor’s degree in Philosophy and Religion you should consider taking 12 credit hours from the courses listed below as part of your AA degree in Liberal Arts.

Planning Your Class Schedule
Students should consult with an advisor in Student Services or a faculty advisor to select courses, make a transfer plan, and periodically review their progress towards their degree completion.

Students are also encouraged to contact the admissions office at the college to which they plan to transfer during their first year at Hawkeye in order to obtain specific program and transfer requirements.

Not all courses may be required for or transfer to your future major.

<table>
<thead>
<tr>
<th>Philosophy and Religion Courses</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PHI101 Introduction to Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHI105 Introduction to Ethics</td>
<td>3</td>
</tr>
<tr>
<td>REL101 Survey of World Religions</td>
<td>3</td>
</tr>
<tr>
<td>REL130 Introduction to Religions of the East</td>
<td>3</td>
</tr>
</tbody>
</table>

Career Opportunities
The following are some of the career opportunities you can pursue in Philosophy and Religion:

- Business
- Minister
- Law
- Teaching
- Journalism
- Public relations
Emphasis Area – Pre-Mortuary Science

Working as a funeral director requires various skills including meeting and consoling families requiring funeral services for their loved one, business skills, and embalming skills. Mortuary science programs prepare students for careers in the funeral industry.

Mortuary science programs typically require students to complete a two-year degree (or equivalent) before starting their program. Hawkeye’s Liberal Arts - AA degree Pre-Mortuary Science emphasis provides the proper background to start a mortuary program.

The recommended courses below will help provide you with an appropriate background for mortuary course work, as well as some of the challenges of being a funeral director.

Planning Your Class Schedule

Students should consult with an advisor in Student Services or a faculty advisor to select courses, make a transfer plan, and periodically review their progress towards their degree completion.

Students are also encouraged to contact the admissions office at the college to which they plan to transfer during their first year at Hawkeye in order to obtain specific program and transfer requirements.

Not all courses may be required for or transfer to your future major.

<table>
<thead>
<tr>
<th>Pre-Mortuary Science Transfer Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO163 Essentials of Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>BUS102 Introduction to Business * -OR-</td>
<td>3</td>
</tr>
<tr>
<td>BUS180 Business Ethics *</td>
<td>3</td>
</tr>
<tr>
<td>CHM122 Introduction to General Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CSC110 Introduction to Computers *</td>
<td>3</td>
</tr>
<tr>
<td>PSY111 Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>REL101 Survey of World Religions</td>
<td>3</td>
</tr>
<tr>
<td>SOC110 Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SOC135 Death and Dying</td>
<td>3</td>
</tr>
<tr>
<td>SOC205 Diversity in America</td>
<td>3</td>
</tr>
</tbody>
</table>

* Recommended courses, but do not count towards your Liberal Arts Core requirement.

Funeral Career Outlook

The Bureau of Labor Statistics provides information on various careers including how much growth in employment will be occurring in the field.

Schooling Required to Become a State Licensed Funeral Director

To become a state licensed funeral director a student must complete one to two years of mortuary
coursework in a mortuary program and then pass the National Board Exam.

A one year internship at a funeral home is required in Iowa and neighboring states.

Volunteer work at a funeral home is recommended before a student starts their mortuary program. The pre-mortuary advisor can help to arrange this service work.

**Mortuary Programs in the Region**

<table>
<thead>
<tr>
<th>Institution</th>
<th>City</th>
</tr>
</thead>
<tbody>
<tr>
<td>Des Moines Area Community College</td>
<td>Des Moines, IA</td>
</tr>
<tr>
<td>University of Minnesota</td>
<td>Minneapolis, MN</td>
</tr>
<tr>
<td>Worsham College</td>
<td>Wheeling, IL</td>
</tr>
</tbody>
</table>

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Maintained by Public Relations and Marketing
Emphasis Area – Psychology

Psychology is both a science and a profession. Regardless of your specific career plans, a bachelor’s degree in Psychology will develop your critical thinking and interpersonal skills and broaden your understanding of research, ethics, and human behavior.

If you are interested in completing a bachelor’s degree in Psychology you should consider taking 12 credit hours from the courses listed below as part of your AA degree in Liberal Arts.

Planning Your Class Schedule
Students should consult with an advisor in Student Services or a faculty advisor to select courses, make a transfer plan, and periodically review their progress towards their degree completion.

Students are also encouraged to contact the admissions office at the college to which they plan to transfer during their first year at Hawkeye in order to obtain specific program and transfer requirements.

Not all courses may be required for or transfer to your future major.

<table>
<thead>
<tr>
<th>Psychology Courses</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY111 Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY121 Developmental Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY241 Abnormal Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY251 Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY261 Human Sexuality</td>
<td>3</td>
</tr>
<tr>
<td>PSY262 Psychology of Gender</td>
<td>3</td>
</tr>
</tbody>
</table>

View Course Descriptions

Career Opportunities
A bachelor’s degree in Psychology can prepare students for careers in a variety of fields such as:

- Management/administration
- Family and social services
- Sales/marketing
- Public relations
- Personnel and labor relations
- Health/wellness

With a graduate degree in Psychology (MA, MS, PhD, or PsyD), one may pursue a variety of career options such as:

- Research
- Teaching
- Counseling/Therapy
- Human Resources/Organizational Consulting

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• Forensics
• Sports Psychology
• Educational Psychology

The American Psychological Association provides additional information on careers and subfields of Psychology.
Emphasis Area – Science

If you are interested in completing a bachelor’s degree in Science you should consider taking 12 credit hours from the courses listed below as part of your AA degree in Liberal Arts.

You may find support for this dynamic major through STEM initiatives (Science, Technology, Engineering, and Math) such as scholarship and grant opportunities.

Planning Your Class Schedule

Students should consult with an advisor in Student Services or a faculty advisor to select courses, make a transfer plan, and periodically review their progress towards their degree completion.

Students are also encouraged to contact the admissions office at the college to which they plan to transfer during their first year at Hawkeye in order to obtain specific program and transfer requirements.

Not all courses may be required for or transfer to your future major.

As a science major, it is important to take the two-semester sequences from the same institution.

For example, if you want to major in Biology, take General Biology I and II from Hawkeye to have the best transferability to the regent institutions.

<table>
<thead>
<tr>
<th>Science Courses</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO112 General Biology I -AND-</td>
<td>4</td>
</tr>
<tr>
<td>BIO113 General Biology II</td>
<td>4</td>
</tr>
<tr>
<td>CHM165 General Chemistry I -AND-</td>
<td>4</td>
</tr>
<tr>
<td>CHM175 General Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>PHY162 College Physics I -AND-</td>
<td>4</td>
</tr>
<tr>
<td>PHY172 College Physics II</td>
<td>4</td>
</tr>
</tbody>
</table>

Career Opportunities

There is a growing need for science majors in our state and nation. Below is a sample list of career opportunities for science majors.

- Teacher
- Medical Doctor
- Veterinary Medicine
- Pharmacy
- Environmental
- Engineering
- Science Research

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Lacy Knipper
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Emphasis Area – Sociology and Social Services

Regardless of your career plans, a degree in Sociology will help you gain skills in critical thinking, research methods, understanding the way that society works and the relationship between individuals and the societies in which we live.

If you are interested in completing a bachelor’s degree in Sociology and Social Services you should consider taking 12 credit hours from the courses listed below as part of your AA degree in Liberal Arts.

Planning Your Class Schedule

Students should consult with an advisor in Student Services or a faculty advisor to select courses, make a transfer plan, and periodically review their progress towards their degree completion.

Students are also encouraged to contact the admissions office at the college to which they plan to transfer during their first year at Hawkeye in order to obtain specific program and transfer requirements.

Not all courses may be required for or transfer to your future major.

<table>
<thead>
<tr>
<th>Sociology Track Courses</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC110  Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SOC115  Social Problems</td>
<td>3</td>
</tr>
<tr>
<td>SOC120  Marriage and Family</td>
<td>3</td>
</tr>
<tr>
<td>SOC135  Death and Dying</td>
<td>3</td>
</tr>
<tr>
<td>SOC200  Minority Group Relations</td>
<td>3</td>
</tr>
<tr>
<td>SOC205  Diversity in America</td>
<td>3</td>
</tr>
<tr>
<td>SOC220  Sociology of Aging</td>
<td>3</td>
</tr>
<tr>
<td>SOC240  Introduction to Criminology</td>
<td>3</td>
</tr>
</tbody>
</table>

View Course Descriptions

<table>
<thead>
<tr>
<th>Social Services Track Courses</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY121  Developmental Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY251  Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC110  Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SOC160  Introduction to Social Work</td>
<td>3</td>
</tr>
<tr>
<td>SOC200  Minority Group Relations</td>
<td>3</td>
</tr>
<tr>
<td>SOC205  Diversity in America</td>
<td>3</td>
</tr>
<tr>
<td>SOC220  Sociology of Aging</td>
<td>3</td>
</tr>
</tbody>
</table>

View Course Descriptions

Program Contacts

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319-296-4470
Career Opportunities
A degree in Sociology prepares students for careers in a variety of fields such as:

- case management
- corrections
- public relations
- public administration
- non-profit management
- research
- policy

In addition, some graduates continue on to graduate or professional school, eventually earning an MA/MS, PhD, MBA, or JD.
Emphasis Area – Wellness

If you are interested in completing a bachelor’s degree in Wellness you should consider taking 12 credit hours from the courses listed below as part of your AA degree in Liberal Arts.

Planning Your Class Schedule
Students should consult with an advisor in Student Services or a faculty advisor to select courses, make a transfer plan, and periodically review their progress towards their degree completion.

Students are also encouraged to contact the admissions office at the college to which they plan to transfer during their first year at Hawkeye in order to obtain specific program and transfer requirements.

Not all courses may be required for or transfer to your future major.

<table>
<thead>
<tr>
<th>Wellness Transfer Courses</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO163       Essentials of Anatomy and Physiology -AND-</td>
<td>4</td>
</tr>
<tr>
<td>BIO168       Human Anatomy and Physiology I with Lab -AND-</td>
<td>4</td>
</tr>
<tr>
<td>BIO173       Human Anatomy and Physiology II with Lab</td>
<td>4</td>
</tr>
<tr>
<td>PEC127       Care and Prevention of Athletic Injuries</td>
<td>2</td>
</tr>
<tr>
<td>PEH111       Personal Wellness</td>
<td>3</td>
</tr>
<tr>
<td>PSY111       Introduction to Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

View Course Descriptions

Career Opportunities
The following are some of the career opportunities you can pursue in Wellness:

- Wellness Coordinator/Fitness Director at a worksite, hospital, YMCA, or YWCA.
- Coaching
- Physical Education Teacher
- Wellness Coach
- Weight Management Specialist
- Exercise Physiologist
- Recreational Specialist
- Personal Trainer
- Group Exercise Instructor
Emphasis Area – Women's Studies

The Women's Studies emphasis crosses traditional academic boundaries to analyze role of gender and Focuses on Cultural learning.

If you are interested in completing a bachelor’s degree in Women's Studies you should consider taking 12 credit hours from the courses listed below as part of your AA degree in Liberal Arts.

Planning Your Class Schedule

Students should consult with an advisor in Student Services or a faculty advisor to select courses, make a transfer plan, and periodically review their progress towards their degree completion.

Students are also encouraged to contact the admissions office at the college to which they plan to transfer during their first year at Hawkeye in order to obtain specific program and transfer requirements.

Not all courses may be required for or transfer to your future major.

**Women's Studies Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM148</td>
<td>Diversity and the Media</td>
<td>3</td>
</tr>
<tr>
<td>HIS277</td>
<td>History of Women in the U.S.</td>
<td>3</td>
</tr>
<tr>
<td>LIT189</td>
<td>Women and Literature</td>
<td>3</td>
</tr>
<tr>
<td>PSY262</td>
<td>Psychology of Gender</td>
<td>3</td>
</tr>
<tr>
<td>WST101</td>
<td>Women's Studies</td>
<td>3</td>
</tr>
</tbody>
</table>

**Career Opportunities**

The following are some of the career opportunities you can pursue in Women's Studies:

- Human Rights Advocate
- Crisis Center Director
- Advocate for Social Groups
- Public Relations Manager
Agricultural Science Transfer Program

The Agriculture Science program is designed to allow students to complete the first two years of a four-year bachelor's degree program. A variety of agricultural, mathematics, sciences, and liberal arts courses are offered to prepare students to transfer to public or private four-year colleges and universities.

The Associate of Science in Agricultural Science allows graduates to enter four-year colleges or universities with 65 credits and/or junior standing. The courses in this program also allow for entry-level employment if the graduate decides to postpone their transfer.

Transfer Information

Students wishing to transfer, especially with a junior standing, must work closely with a Hawkeye academic advisor. Specific bachelor's degree program requirements vary. For more information, contact a program advisor.
Agricultural Science Admissions Requirements

1. Be a high school graduate or equivalent.
   [High School Diploma Verification Process]

2. Apply at Hawkeye.

3. Meet basic skill competencies in reading, writing, and math.

   Basic skill competencies assessment provides information about your academic skills in reading, writing, and math. This information will be used to determine your acceptance, course selection, and registration.

   For general admission to Hawkeye Community College, students must provide assessment scores in reading, math, and writing.

   College success courses may be required if your assessment score indicates additional help is needed.

   For course placement recommendations, based on your assessment score, review the [Assessment Scores and Course Equivalences].

   **Accepted Assessments**
   - ACT
   - COMPASS
   - ASSET
   - SAT
   - ACCUPLACER (effective Spring 2014)

   **Previous College Experience**
   Assessment may be waived based on previous college course work in reading, math, and writing. Send your official college transcripts to the Admissions office for evaluation.

Hawkeye's Equal Opportunity Statement
### Agricultural Science Courses

**Award:** Associate of Science (AS)  
**Program Start:** Fall, Spring, Summer  
**Enrollment Status:** Full-time or part-time

The Agricultural Science program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change. Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

<table>
<thead>
<tr>
<th>Semester 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>AGA114</td>
<td>Principles of Agronomy</td>
</tr>
<tr>
<td>AGS113</td>
<td>Survey of the Animal Industry</td>
</tr>
<tr>
<td>BIO112</td>
<td>General Biology I</td>
</tr>
<tr>
<td>SOC115</td>
<td>Social Problems</td>
</tr>
<tr>
<td></td>
<td>Social Diversity</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>AGA154</td>
<td>Fundamentals of Soil Science</td>
</tr>
<tr>
<td>AGS211</td>
<td>Issues Facing Animal Science (optional)</td>
</tr>
<tr>
<td>BIO113</td>
<td>General Biology II</td>
</tr>
<tr>
<td>ENG105</td>
<td>Composition I</td>
</tr>
<tr>
<td>MAT156</td>
<td>Statistics</td>
</tr>
<tr>
<td></td>
<td>Humanities (Literature and Fine Arts) -OR-</td>
</tr>
<tr>
<td></td>
<td>Humanities (Philosophy and Religion)</td>
</tr>
<tr>
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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>AGP333</td>
<td>Precision Farming Systems</td>
</tr>
<tr>
<td>CHM165</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>HIS117</td>
<td>Western Civilization I: Ancient and Medieval</td>
</tr>
<tr>
<td>HIS151</td>
<td>U.S. History to 1877 -OR-</td>
</tr>
<tr>
<td>HIS152</td>
<td>U.S. History Since 1877</td>
</tr>
</tbody>
</table>

**Program Contacts**

**Department Secretary**  
Dianne Lellig  
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**Dean**  
Ray Beets  
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319-296-4042  
Email me
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>SPC101</td>
<td>Fundamentals of Oral Communication</td>
<td>3</td>
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<tr>
<td>ACC131</td>
<td>Principles of Accounting I</td>
<td>4</td>
</tr>
<tr>
<td>AGA376</td>
<td>Integrated Pest Management</td>
<td>3</td>
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<tr>
<td>AGB336</td>
<td>Agricultural Selling</td>
<td>3</td>
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<tr>
<td>AGP450</td>
<td>Fundamentals of GIS</td>
<td>3</td>
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<tr>
<td>ENG106</td>
<td>Composition II</td>
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</table>

Total Credits 16
Business Administration Transfer Program

The Associate of Arts in Business Administration degree is designed to allow students to complete the first two years of a four-year Bachelor's degree program and transfer to a public or private four-year college or university. A variety of courses from a wide range of disciplines are offered to students.

Transfer Information

The Associate of Arts in Business Administration degree is designed for students who plan to continue their studies toward a four year or baccalaureate degree in Business Administration, Accounting, Marketing, Management, Management Information Systems, or Finance at the University of Northern Iowa or at another Iowa Regent university or private college. For more information, contact a program advisor.

Hawkeye is the number one source of new students to the University of Northern Iowa.

Mount Mercy University Transfer Program

Hawkeye Community College and Mount Mercy University have partnered together to offer a degree program which delivers courses in an accelerated format, in the evening, specifically designed for working adults.

With the Hawkeye/Mount Mercy Accelerated program:

- You can complete your 2-year associate's degree then continue on to earn your 4-year bachelor's degree right here on Hawkeye's campus.
- You can focus on one class at a time, with classes meeting once a week in the evening for 5-10 weeks.
- Mount Mercy will accept up to 75 credits from Hawkeye and apply them toward your bachelor's degree. That's 13 more credits than most other 4-year colleges in the area!

Learn more about Mount Mercy's Accelerated Evening Bachelor Degree program.
Business Administration Transfer Program Admission Requirements

1. Be a high school graduate or equivalent.
   High School Diploma Verification Process.

2. Apply at Hawkeye.

3. Meet basic skill competencies in reading, writing, and math.
   Basic skill competencies assessment provides information about your academic skills in reading, writing, and math. This information will be used to determine your acceptance, course selection, and registration.

   For general admission to Hawkeye Community College, students must provide assessment scores in reading, math, and writing.

   College success courses may be required if your assessment score indicates additional help is needed.

   For course placement recommendations, based on your assessment score, review the Assessment Scores and Course Equivalences.

   Accepted Assessments
   ◦ ACT
   ◦ COMPASS
   ◦ ASSET
   ◦ SAT
   ◦ ACCUPLACER (effective Spring 2014)

   Previous College Experience
   Assessment may be waived based on previous college course work in reading, math, and writing. Send your official college transcripts to the Admissions office for evaluation.

Hawkeye's Equal Opportunity Statement
Business Administration Transfer Program Courses

Award: Associate of Arts (AA)
Program Start: Fall, Spring, Summer
Enrollment Status: Full-time or part-time

The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

Planning Your Class Schedule
Students should work with a Hawkeye program advisor to select courses, make a transfer plan, and review their progress.

You are also encouraged to contact the admissions office at the college to which you plan to transfer during your first year at Hawkeye in order to obtain specific program and transfer requirements.

The following courses are designed to transfer to the University of Northern Iowa's College of Business Administration. Students planning to transfer to a college other than UNI, should work with their advisor for approved business courses.

* UNI specific courses.

<table>
<thead>
<tr>
<th>Semester 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BCA201 Introduction to Information Systems *</td>
<td>3</td>
</tr>
<tr>
<td>ECN120 Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ENG105 Composition I</td>
<td>3</td>
</tr>
<tr>
<td>PSY111 Introduction to Psychology -OR-</td>
<td>3</td>
</tr>
<tr>
<td>SOC110 Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SPC101 Fundamentals of Oral Communication</td>
<td>3</td>
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<tr>
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<table>
<thead>
<tr>
<th>Semester 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ECN130 Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ENG106 Composition II</td>
<td>3</td>
</tr>
<tr>
<td>HIS117 Western Civilization I: Ancient and Medieval -OR-</td>
<td>3</td>
</tr>
<tr>
<td>HIS118 Western Civilization II: Early Modern -OR-</td>
<td>3</td>
</tr>
<tr>
<td>HIS119 Western Civilization III: The Modern Period</td>
<td>3</td>
</tr>
<tr>
<td>MAT156 Statistics</td>
<td>3</td>
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<tr>
<td><strong>Social Diversity</strong></td>
<td>3</td>
</tr>
</tbody>
</table>

Program Contacts
Department Secretary
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Email me

Roger Davis
Black Hawk Hall 181
319-296-2329 ext.1754
Email me

Dean
Bryan Renfro
Black Hawk Hall 180
319-296-4427
Email me
<table>
<thead>
<tr>
<th>Semester 3</th>
<th>Total Credits 15</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ACC131</strong>  Principles of Accounting I</td>
<td>4</td>
</tr>
<tr>
<td><strong>BUS210</strong>  Business Statistics *</td>
<td>3</td>
</tr>
<tr>
<td><strong>HIS151</strong>  U.S. History to 1877 -OR-</td>
<td>3</td>
</tr>
<tr>
<td><strong>HIS152</strong>  U.S. History Since 1877 -OR-</td>
<td>3</td>
</tr>
<tr>
<td><strong>POL111</strong>  American National Government</td>
<td>3</td>
</tr>
<tr>
<td><strong>Biological Science</strong>  -OR-</td>
<td>4</td>
</tr>
<tr>
<td><strong>Physical Science</strong></td>
<td>4</td>
</tr>
<tr>
<td><strong>Humanities – Non-Western Culture</strong></td>
<td>3</td>
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<table>
<thead>
<tr>
<th>Semester 4</th>
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<tbody>
<tr>
<td><strong>ACC132</strong>  Principles of Accounting II</td>
<td>4</td>
</tr>
<tr>
<td><strong>BUS230</strong>  Quantitative Methods for Business Decision Making *</td>
<td>3</td>
</tr>
<tr>
<td><strong>Biological Science</strong>  -OR-</td>
<td>3</td>
</tr>
<tr>
<td><strong>Physical Science</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>General Social Sciences</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>Humanities – Literature and Fine Arts</strong>  -OR-</td>
<td>3</td>
</tr>
<tr>
<td><strong>Humanities – Philosophy and Religion</strong></td>
<td>3</td>
</tr>
</tbody>
</table>

*View Course Descriptions

<table>
<thead>
<tr>
<th>Total Credits 16</th>
</tr>
</thead>
</table>

[College Catalog](#) | [Next Page >](#)
Criminal Justice Transfer Program

The Criminal Justice program is designed to allow students to complete the first two years of a four-year bachelor's degree program. A variety of courses from a wide range of disciplines are offered to prepare students to transfer to public or private four-year colleges and universities. This degree offers a balanced distribution of criminal justice courses and liberal arts electives.

The Associate of Arts in Criminal Justice degree enables graduates to enter four-year institutions with junior standing in Criminal Justice. If graduates decide to postpone their transfer, the courses in the program could prepare the associate degree graduate for entry-level employment in the criminal justice career field.

Transfer Information

This degree provides all the necessary general education and specific course requirements to allow graduates to transfer to any four-year institution and to pursue degrees in criminal justice related majors such as Corrections, Criminology, or Social Work. For more information, contact a program advisor.

College Catalog | Next Page >
Criminal History Matters

As a future criminal justice professional, students need to use good judgment in all areas of their personal, professional, and scholastic interactions and activities; and must keep their records clean. Criminal justice organizations require background checks for internships, volunteer placements, and employment; which will include adult and juvenile civil and criminal issues, official and informal contacts with police, and character references. Employment will also hinge on the successful completion of a polygraph, credit check, and psychological evaluation.

Be aware that character counts and your behavior can sabotage your ability to graduate from this program and your ability to work in the field. Consider what your actions and criminal history says about you….i.e. an OWI conviction indicates that you demonstrate poor judgment by drinking to excess and deciding to drive, which may kill or injure you or another person. Remember your personal behaviors (what you didn’t get caught for) will be revealed during the polygraph, and what you do privately (when no one is watching or supervising) speaks volumes as to the true content of one’s character.

If you want to work in criminal justice avoid these issues:

- Acquiring speeding tickets or safety violation citations.
- Acquiring a suspended driver’s license or citations for driving with a suspended license.
- Participating in underage drinking, using fake ID’s, or buying alcohol for underage persons.
- Use or abuse of prescription drugs, street drugs, club drugs (ecstasy), marijuana, or synthetic drugs.
- Engaging in theft of property, goods, or services.

You will not be employable in criminal justice if you have:

- Felony convictions.
- Domestic abuse convictions.
- Placement on an abuse registry (Sex offender, child/elder abuse).
- Drug convictions, or history of drug use or abuse (methamphetamine, cocaine, heroin, etc.) Each agency (city, county, state, or federal) sets their own limits on marijuana use from zero tolerance to a limited amount of use, and factors in how recent the use was.
- Weapons violations.

Ultimately, criminal justice employers will rationalize your behavior by this criteria: If you know or reasonably believe an action is illegal or will cause harm then the best candidate will take responsibility, demonstrate self-control, and not do it.

Lastly, employers will ask our faculty for references. Students need to know that full time faculty and adjunct faculty members are constantly formally and informally assessing students in terms of academic performance, attendance, honesty, professionalism, social skills, maturity, and appearance so that we can make objective assessments when asked. Your interactions count, and we are here to mentor you.
Criminal Justice Transfer Program Admission Requirements

1. Be a high school graduate or equivalent. 
   High School Diploma Verification Process.

2. Apply at Hawkeye.

3. Meet basic skill competencies in reading, writing, and math.

   Basic skill competencies assessment provides information about your academic skills in reading, writing, and math. This information will be used to determine your acceptance, course selection, and registration.

   For general admission to Hawkeye Community College, students must provide assessment scores in reading, math, and writing.

   College success courses may be required if your assessment score indicates additional help is needed.

   For course placement recommendations, based on your assessment score, review the Assessment Scores and Course Equivalences.

   **Accepted Assessments**
   - ACT
   - COMPASS
   - ASSET
   - SAT
   - ACCUPLACER (effective Spring 2014)

   **Previous College Experience**
   Assessment may be waived based on previous college course work in reading, math, and writing. Send your official college transcripts to the Admissions office for evaluation.

Hawkeye's Equal Opportunity Statement
**Criminal Justice Transfer Program Courses**

**Award:** Associate of Arts (AA)

**Program Start:** Fall, Spring, Summer

**Enrollment Status:** Full-time or part-time

The Criminal Justice program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Total Credits 15</th>
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<tbody>
<tr>
<td>CRJ100 Introduction to Criminal Justice</td>
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<tr>
<td>ENG105 Composition I</td>
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<td>SOC205 Diversity in America</td>
<td>3</td>
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<td>SPC101 Fundamentals of Oral Communication</td>
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<td><strong>Mathematics Course</strong></td>
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<table>
<thead>
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<tbody>
<tr>
<td>CRJ120 Introduction to Corrections</td>
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<tr>
<td>CRJ320 Criminal Justice Ethics</td>
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<tr>
<td>ENG106 Composition II</td>
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<tr>
<td><strong>Humanities Course</strong></td>
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<tr>
<td><strong>Social Sciences Course</strong></td>
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<tbody>
<tr>
<td>CRJ200 Criminology</td>
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<tr>
<td>CRJ233 Probation, Parole, Community-Based Corrections</td>
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<tr>
<td><strong>Humanities Course</strong></td>
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<tr>
<td><strong>Social Sciences Course</strong></td>
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<tr>
<td><strong>Biological Science Course</strong></td>
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### Semester 4

<table>
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<td>CRJ201</td>
<td>Juvenile Delinquency</td>
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<td>CRJ316</td>
<td>Juvenile Justice -OR-</td>
<td>3</td>
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<tr>
<td>CRJ317</td>
<td>White Collar Crime -OR-</td>
<td>3</td>
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<tr>
<td>CRJ318</td>
<td>Crime Analysis</td>
<td>3</td>
</tr>
<tr>
<td>CRJ316</td>
<td>Juvenile Justice -OR-</td>
<td>3</td>
</tr>
<tr>
<td>CRJ317</td>
<td>White Collar Crime -OR-</td>
<td>3</td>
</tr>
<tr>
<td>CRJ318</td>
<td>Crime Analysis</td>
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**Social Sciences Course**

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**Humanities Course**

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**Physical Science Course**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
</table>

**Total Credits 18**

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Education Transfer Program

The Education Transfer program gives students an introduction into teaching in an elementary or secondary school. This program is designed for students to complete the first two years of a four-year teaching degree program, earning their Associate of Arts degree in Liberal Arts. Students then transfer to an accredited teacher’s education program at a public or private four-year college or university.

Starting your education major at Hawkeye will allow you to have practical experience with students in local schools beginning on day one. The classes you will take in this program have been designed to allow you to gain practical insight into the teaching profession and offer many opportunities to work with local students.

The Education Club is regularly involved in local schools and helps to provide a social network to support our education majors.

Students wishing to coach can complete coaching endorsement courses at Hawkeye.

Teaching Profession

According to Iowa Workforce Development, there will be more than 1,900 openings each year in elementary, middle school, and secondary teaching positions in Iowa through 2020.

Licensed teachers find employment in elementary schools, secondary schools, preschools, and private schools.

Transferring

Completion of the Pre-Professional Skills Test (PPST-PRAXIS I) is necessary for your transfer to Colleges of Education at Iowa’s Regent universities. Test scores need to be submitted before admission can be processed. We recommend completing the test early in your second year at Hawkeye.

Students enrolled in classes full-time will typically take four and a half to five years to graduate with their four-year degree.
It is important to plan your classes carefully and work with an advisor from Hawkeye and your transfer school to ensure a smooth transfer.

Hawkeye has articulated transfer agreements with the University of Northern Iowa, Iowa State University, University of Iowa, and Upper Iowa University.
Education Transfer Program Admission Requirements

1. Be a high school graduate or equivalent. [High School Diploma Verification Process]

2. Apply at Hawkeye.

3. Meet basic skill competencies in reading, writing, and math.

   Basic skill competencies assessment provides information about your academic skills in reading, writing, and math. This information will be used to determine your acceptance, course selection, and registration.

   For general admission to Hawkeye Community College, students must provide assessment scores in reading, math, and writing.

   College success courses may be required if your assessment score indicates additional help is needed.

   For course placement recommendations, based on your assessment score, review the [Assessment Scores and Course Equivalences].

   **Accepted Assessments**
   - ACT
   - COMPASS
   - ASSET
   - SAT
   - ACCUPLACER (effective Spring 2014)

   **Previous College Experience**
   Assessment may be waived based on previous college course work in reading, math, and writing. Send your official college transcripts to the Admissions office for evaluation.

Hawkeye's Equal Opportunity Statement

Transferring
Students enrolled in this program will also need to meet the admission requirements of their transfer institution. Students must work closely with an advisor from Hawkeye and an advisor from their transfer school to ensure they meet the admissions requirements and that their courses will transfer.

University of Northern Iowa's program admission requirements.

College Catalog | Next Page >
Education Transfer Program – Elementary Education Courses

**Award:** Associate of Arts (AA)
**Program Start:** Fall, Spring, Summer
**Enrollment Status:** Full-time or part-time

### Program Options
- Elementary Education
- Secondary Education
- Coaching Endorsement

### Planning Your Class Schedule
Students can complete the Elementary Education transfer program with all day classes, all evening classes, or a combination of day and evening classes. See evening course schedule.

We recommend you work with a Hawkeye program advisor to select courses, make a transfer plan, and review your progress.

You are also encouraged to contact the admissions office at the college to which you plan to transfer during your first year at Hawkeye for your transfer college's specific program and transfer requirements.

The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student planning to transfer to the University of Northern Iowa, and is subject to change.

### Required Background Screenings to Participate in Field Experience Courses
Students must pass a background check before being placed the Field Experience course.

#### Semester 1

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>EDU216</td>
<td>Introduction to Teaching -OR-</td>
<td>3</td>
</tr>
<tr>
<td>EDU214</td>
<td>Exploring PK-12 Education</td>
<td>2</td>
</tr>
<tr>
<td>ENG105</td>
<td>Composition I</td>
<td>3</td>
</tr>
<tr>
<td>MAT110</td>
<td>Math for Liberal Arts</td>
<td>3</td>
</tr>
<tr>
<td>PSY111</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SPC101</td>
<td>Fundamentals of Oral Communication</td>
<td>3</td>
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View Course Descriptions

**Total Credits 15**

#### Semester 2

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>EDU235</td>
<td>Children's Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENG106</td>
<td>Composition II</td>
<td>3</td>
</tr>
<tr>
<td>HIS117</td>
<td>Western Civilization I: Ancient and Medieval -OR-</td>
<td>3</td>
</tr>
<tr>
<td>HIS118</td>
<td>Western Civilization II: Early Modern -OR-</td>
<td>3</td>
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<tr>
<td>HIS119</td>
<td>Western Civilization III: The Modern Period</td>
<td>3</td>
</tr>
<tr>
<td>PSY121</td>
<td>Developmental Psychology</td>
<td>3</td>
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</tbody>
</table>

Successfully completing this course at Hawkeye will exempt you from taking 200:030 at UNI.
Biological Sciences Course with Lab -OR- 4
Physical Sciences Course with Lab 4
Must complete one Physical Science course and one Biological Science course. One course needs to include a lab.

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Credits</th>
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<tbody>
<tr>
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</tr>
<tr>
<td>Physical Sciences Course with Lab</td>
<td>4</td>
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</table>

Semester 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>EDU240</td>
<td>Educational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>EDU920</td>
<td>Field Experience</td>
<td>1</td>
</tr>
<tr>
<td>MAT151</td>
<td>Math Reasoning for Teachers I</td>
<td>3</td>
</tr>
<tr>
<td>Humanities: Non-Western Cultures Course</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Social Sciences: American Society Course</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Biological Sciences Course -OR-</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Physical Sciences Course</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Must complete one Physical Science course and one Biological Science course. One course needs to include a lab.

Semester 4

<table>
<thead>
<tr>
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<th>Credits</th>
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<td>EDU223</td>
<td>Multicultural Education</td>
<td>3</td>
</tr>
<tr>
<td>EDU255</td>
<td>Technology in the Classroom</td>
<td>3</td>
</tr>
<tr>
<td>EDU901</td>
<td>Academic Service Learning Experience</td>
<td>1</td>
</tr>
<tr>
<td>Humanities: Literature and Fine Arts Course -OR-</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Humanities: Philosophy and Religion Course</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Social Diversity Course</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Elective Course</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

May be taken during any semester. It is not recommended to take this course at the same time as your field experience.
Education Transfer Program – Secondary Education Courses

Award: Associate of Arts (AA)
Program Start: Fall, Spring, Summer
Enrollment Status: Full-time or part-time

Planning Your Class Schedule
Students can complete the Secondary Education transfer program with all day classes, all evening classes, or a combination of day and evening classes. See evening course schedule.

We recommend you work with a Hawkeye program advisor to select courses, make a transfer plan, and review your progress.

You are also encouraged to contact the admissions office at the college to which you plan to transfer during your first year at Hawkeye for your transfer college's specific program and transfer requirements.

The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student planning to transfer to the University of Northern Iowa, and is subject to change.

Required Background Screenings to Participate in Field Experience Courses
Students must pass a background check before being placed the Field Experience course.

<table>
<thead>
<tr>
<th>Semester 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EDU216</td>
<td>Introduction to Teaching -OR-</td>
</tr>
<tr>
<td>EDU214</td>
<td>Exploring PK-12 Education</td>
</tr>
<tr>
<td>ENG105</td>
<td>Composition I</td>
</tr>
<tr>
<td>MAT156</td>
<td>Statistics -OR-</td>
</tr>
<tr>
<td>MAT210</td>
<td>Calculus I -OR-</td>
</tr>
<tr>
<td></td>
<td>Math Course in your Concentration Area</td>
</tr>
<tr>
<td>PSY111</td>
<td>Introduction to Psychology</td>
</tr>
<tr>
<td>SPC101</td>
<td>Fundamentals of Oral Communication</td>
</tr>
</tbody>
</table>

| View Course Descriptions | Total Credits 15 |

<table>
<thead>
<tr>
<th>Semester 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG106</td>
<td>Composition II</td>
</tr>
<tr>
<td>HIS117</td>
<td>Western Civilization I: Ancient and Medieval -OR-</td>
</tr>
<tr>
<td>HIS118</td>
<td>Western Civilization II: Early Modern -OR-</td>
</tr>
<tr>
<td>HIS119</td>
<td>Western Civilization III: The Modern Period</td>
</tr>
<tr>
<td>PSY121</td>
<td>Developmental Psychology</td>
</tr>
</tbody>
</table>
Successfully completing this course at Hawkeye will exempt you from taking 200:030 at UNI.

**Biological Sciences Course with Lab -OR- Physical Sciences Course with Lab**

Must complete one Physical Science course and one Biological Science course. One course needs to include a lab.

**Course in your Concentration Area**

<table>
<thead>
<tr>
<th>Semester 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDU240 Educational Psychology</td>
</tr>
<tr>
<td>EDU920 Field Experience</td>
</tr>
<tr>
<td><strong>Humanities: Non-Western Cultures Course</strong></td>
</tr>
<tr>
<td><strong>Course in your Concentration Area</strong></td>
</tr>
<tr>
<td><strong>Social Sciences: American Society Course</strong></td>
</tr>
<tr>
<td><strong>Biological Sciences Course -OR- Physical Sciences Course</strong></td>
</tr>
</tbody>
</table>

Must complete one Physical Science course and one Biological Science course. One course needs to include a lab.

View Course Descriptions

**Total Credits 16**

**Semester 4**

EDU223 Multicultural Education | 3
EDU255 Technology in the Classroom ** | 3
EDU901 Academic Service Learning Experience | 1

May be taken during any semester. It is not recommended to take this course at the same time as your field experience.

**Social Diversity Course**

**Elective Course**

**Humanities: Literature and Fine Arts Course -OR- Humanities: Philosophy and Religion Course**

| **Total Credits 16** |

**Industrial Technology, Music Education, Art Education, Science Education, and Business Education majors will be waived from EDU255.**

View Course Descriptions

College Catalog | Next Page >
**Education Transfer Program – Secondary Education**

**Concentration Areas**

Secondary Education transfer program students can select courses from a concentration area of their choice to complete program requirements.

Students are encouraged to work with a Hawkeye program advisor to select courses, make a transfer plan, and review their progress. We also recommend working with an advisor from the college the student will be transferring to for specific program and transfer requirements.

### Program Options

- **Elementary Education**
- **Secondary Education**
- **Coaching Endorsement**

### Art

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>ART120</td>
<td>2-D Design</td>
<td>3</td>
</tr>
<tr>
<td>ART123</td>
<td>3-D Design</td>
<td>3</td>
</tr>
<tr>
<td>ART133</td>
<td>Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART134</td>
<td>Drawing II</td>
<td>3</td>
</tr>
<tr>
<td>ART203</td>
<td>Art History I</td>
<td>3</td>
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<tr>
<td>ART204</td>
<td>Art History II</td>
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**View Course Descriptions**

### Business Teaching

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
<td>ACC131</td>
<td>Principles of Accounting I</td>
<td>4</td>
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<tr>
<td>ACC132</td>
<td>Principles of Accounting II</td>
<td>4</td>
</tr>
<tr>
<td>BCA201</td>
<td>Introduction to Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>BUS210</td>
<td>Business Statistics</td>
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<tr>
<td>ECN120</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECN130</td>
<td>Principles of Microeconomics</td>
<td>3</td>
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<td>MAT156</td>
<td>Statistics</td>
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**View Course Descriptions**

### Chemistry

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CHM165</td>
<td>General Chemistry I</td>
<td>4</td>
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<tr>
<td>CHM175</td>
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<tr>
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<td>College Physics I</td>
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<td>PHY172</td>
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**View Course Descriptions**
<table>
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<tr>
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<td>SPC122</td>
<td>Interpersonal Communication</td>
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<td>SPC132</td>
<td>Group Communication</td>
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<td></td>
<td>SPC140</td>
<td>Oral Interpretation</td>
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<td>General Chemistry I</td>
<td>4</td>
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<td></td>
<td>CHM175</td>
<td>General Chemistry II</td>
<td>4</td>
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<td></td>
<td>PHS142</td>
<td>Principles of Astronomy</td>
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<td></td>
<td>PHY162</td>
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<td>PHY172</td>
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<tr>
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<td>MAT156</td>
<td>Statistics</td>
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<td>PSY261</td>
<td>Human Sexuality</td>
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<table>
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<td>HIS117</td>
<td>Western Civilization I: Ancient and Medieval</td>
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<tr>
<td></td>
<td>HIS119</td>
<td>Western Civilization III: The Modern Period</td>
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<td></td>
<td>HIS151</td>
<td>U.S. History to 1877</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>HIS152</td>
<td>U.S. History Since 1877</td>
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<tr>
<td></td>
<td>MAT210</td>
<td>Calculus I</td>
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<td>MAT216</td>
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<td>MAT219</td>
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<td></td>
<td>MAT216</td>
<td>Calculus II</td>
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<td></td>
<td>PHY212</td>
<td>Classical Physics I</td>
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<td></td>
<td>PHY222</td>
<td>Classical Physics II</td>
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<td>Credits</td>
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</tr>
<tr>
<td>MAT156</td>
<td>Statistics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PSY121</td>
<td>Developmental Psychology</td>
<td>3</td>
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</tr>
<tr>
<td>PSY251</td>
<td>Social Psychology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PSY262</td>
<td>Psychology of Gender</td>
<td>3</td>
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</table>

**Psychology – Teaching**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>BIO112</td>
<td>General Biology I</td>
<td>4</td>
</tr>
<tr>
<td>BIO113</td>
<td>General Biology II</td>
<td>4</td>
</tr>
<tr>
<td>CHM165</td>
<td>General Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHM175</td>
<td>General Chemistry II</td>
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<tr>
<td>PHY162</td>
<td>College Physics I</td>
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<td>PHY172</td>
<td>College Physics II</td>
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**Science – All Science Teaching Middle/High School**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ECN120</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECN130</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>GEO115</td>
<td>Human Geography</td>
<td>3</td>
</tr>
<tr>
<td>HIS151</td>
<td>U.S. History to 1877</td>
<td>3</td>
</tr>
<tr>
<td>HIS152</td>
<td>U.S. History Since 1877</td>
<td>3</td>
</tr>
<tr>
<td>POL111</td>
<td>American National Government</td>
<td>3</td>
</tr>
<tr>
<td>SOC110</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SOC115</td>
<td>Social Problems</td>
<td>3</td>
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</table>

**Social Science Teaching – All Social Science**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MAT156</td>
<td>Statistics</td>
<td>3</td>
</tr>
<tr>
<td>PHY162</td>
<td>College Physics I</td>
<td>4</td>
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**Technology Education**

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<th>Course Title</th>
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<tbody>
<tr>
<td>PSY121</td>
<td>Developmental Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY251</td>
<td>Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY262</td>
<td>Psychology of Gender</td>
<td>3</td>
</tr>
</tbody>
</table>

**View Course Descriptions**

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Coaching Endorsement Courses

To receive your coaching endorsement you must complete a K-12 teaching program in addition to completing the following coaching authorization classes for credit.

Visit the [Iowa Board of Educational Examiners Coaching Authorization Frequently Asked Questions](#) for more information.

### Coaching Endorsement Courses – Offered Spring Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEC110</td>
<td>Coaching Ethics, Techniques and Theory</td>
<td>1</td>
</tr>
<tr>
<td>PEC115</td>
<td>Athletic Development and Human Growth -OR-</td>
<td>1</td>
</tr>
<tr>
<td>PSY121</td>
<td>Developmental Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PEC123</td>
<td>Anatomy for Coaching</td>
<td>1</td>
</tr>
<tr>
<td>PEC127</td>
<td>Care and Prevention of Athletic Injuries</td>
<td>2</td>
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<tr>
<td></td>
<td>Course in your Concentration Area</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>8</strong></td>
</tr>
</tbody>
</table>

View Course Descriptions
Agricultural Business Management

The Agricultural Business Management program prepares students for careers in sales, service, production, management, marketing, and research in agriculture. Hawkeye's 400-acre Farm Lab utilizes new and up-to-date facilities and equipment to provide students hands-on experience with the latest production and management techniques.

Transfer Information
Hawkeye Community College’s Agriculture and Natural Resources programs have articulation agreements with Iowa State University, Upper Iowa University, and Northwest Missouri State University to transfer both general education and technical credits. Many other state and private colleges and universities accept up to 65 credit hours. For more information, contact a program advisor.
Agricultural Business Management Careers

The changing face of agriculture has resulted in new and challenging career opportunities for those interested in the active field. Agricultural employees work in fields and offices dealing with individuals, corporations, plants, animals, and equipment in the agriculture production cycle. Students are prepared for technical careers using GPS, data collections systems, and geospatial mapping software. Emphasis is placed on the application of these technologies in agriculture production.

Graduates find employment working as:
- agronomy specialists
- crop scouts
- equipment/parts assistants
- grain merchandisers
- farm and business managers
- GPS/GIS technologists
- research assistants
- agriculture production
- agriculture sales and marketing
- agriculture finance

Placement
Starting Wages: $29,000 – $36,000 per year*

Employers

<table>
<thead>
<tr>
<th>Employer</th>
<th>Location</th>
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</thead>
<tbody>
<tr>
<td>Ag Leader Technology</td>
<td>Ames, IA</td>
</tr>
<tr>
<td>FS Growmark</td>
<td>Waverly, IA</td>
</tr>
<tr>
<td>MaxYield Cooperative</td>
<td>Emmetsburg, IA</td>
</tr>
<tr>
<td>Pioneer Hi-bred</td>
<td>Johnston and Reinbeck, IA</td>
</tr>
<tr>
<td>United Ag Products</td>
<td>Winthrop, IA</td>
</tr>
</tbody>
</table>

*As reported by the Agriculture and Natural Resources department
Agricultural Business Management Admission Requirements

1. Be a high school graduate or equivalent.
   High School Diploma Verification Process.

2. Apply at Hawkeye.

3. Meet basic skill competencies in reading, writing, and math.
   Basic skill competencies assessment provides information about your academic skills in reading, writing, and math. This information will be used to determine your acceptance, course selection, and registration.

   For general admission to Hawkeye Community College, students must provide assessment scores in reading, math, and writing.

   College success courses may be required if your assessment score indicates additional help is needed.

   For course placement recommendations, based on your assessment score, review the Assessment Scores and Course Equivalences.

   Accepted Assessments
   ◦ ACT
   ◦ COMPASS
   ◦ ASSET
   ◦ SAT
   ◦ ACCUPLACER (effective Spring 2014)

   Previous College Experience
   Assessment may be waived based on previous college course work in reading, math, and writing. Send your official college transcripts to the Admissions office for evaluation.

Hawkeye's Equal Opportunity Statement
## Agricultural Business Management Courses

**Award:** Associate of Applied Science (AAS)  
**Program Start:** Fall, Spring, Summer  
**Enrollment Status:** Full-time or part-time

The **AAS degree program** requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your **Program Evaluation** to see your specific program requirements and to search and register for classes.

### Semester 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>AGA114</td>
<td>Principles of Agronomy</td>
<td>3</td>
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<td>AGC103</td>
<td>Ag Computer</td>
<td>3</td>
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<tr>
<td>AGS113</td>
<td>Survey of the Animal Industry</td>
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<tr>
<td>CNS121</td>
<td>Environmental Conservation</td>
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<td>ENG105</td>
<td>Composition I -OR-</td>
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<td>COM781</td>
<td>Written Communication in the Workplace</td>
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<td>MAT772</td>
<td>Applied Math -OR-</td>
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**Math Elective**  

### Total Credits 18

### Semester 2

<table>
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<td>AGA376</td>
<td>Integrated Pest Management</td>
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<td>AGP450</td>
<td>Fundamentals of GIS</td>
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<tr>
<td>AGS319</td>
<td>Animal Nutrition</td>
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<tr>
<td>PSY102</td>
<td>Human and Work Relations -OR-</td>
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<td>PSY111</td>
<td>Introduction to Psychology -OR-</td>
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<tr>
<td>SOC110</td>
<td>Introduction to Sociology</td>
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</tr>
<tr>
<td>SPC101</td>
<td>Fundamentals of Oral Communication</td>
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</tbody>
</table>

**View Course Descriptions**  

### Total Credits 18

---

**Program Contacts**

**Department Secretary**  
Dianne Lellig  
Butler Hall 104  
319-296-4011  
Email me

**Program Advisors**  
Dave Grunklee  
Bremer Hall 101-D  
319-296-2329 ext.1115  
Email me

Brad Kinsinger  
Bremer Hall 101-F  
319-296-2329 ext.1321  
Email me

**Dean**  
Ray Beets  
Butler Hall 104-A  
319-296-4042  
Email me
### Semester 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
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<td>ACC131</td>
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<td>AGA214</td>
<td>Cash Grains</td>
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<tr>
<td>AGB101</td>
<td>Agricultural Economics</td>
<td>3</td>
</tr>
<tr>
<td>AGB235</td>
<td>Introduction to Agriculture Markets</td>
<td>3</td>
</tr>
<tr>
<td>AGB303</td>
<td>Agriculture Leadership -OR-</td>
<td>3</td>
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<td>AGP436</td>
<td>Advanced Precision Farm Hardware</td>
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**Total Credits 19**

### Semester 4

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<td>Agricultural Selling</td>
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**Total Credits 14**

### Math Electives

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<tr>
<td>MAT219</td>
<td>Calculus III</td>
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</table>

**View Course Descriptions**
## Agricultural Business Management Courses

**Award:** Associate of Applied Science (AAS)

**Program Start:** Fall, Spring, Summer

**Enrollment Status:** Full-time or part-time

The *Agricultural Business Management AAS degree program* requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change. Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

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<thead>
<tr>
<th>Semester 1</th>
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<tbody>
<tr>
<td><strong>AGA114</strong> Principles of Agronomy -OR-</td>
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<td><strong>BIO105</strong> Introductory Biology -OR-</td>
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<tr>
<td><strong>BIO112</strong> General Biology I -OR-</td>
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<td><strong>BCA201</strong> Introduction to Information Systems -OR-</td>
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<td>3</td>
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<tr>
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<td><strong>CNS121</strong> Environmental Conservation -OR-</td>
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<td>Elective</td>
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<td><strong>AGP450</strong> Fundamentals of GIS -OR-</td>
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<td>Elective</td>
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<td>Social Problems -OR-</td>
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<td>Introduction to Psychology -OR-</td>
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<td>Introduction to Accounting -OR-</td>
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<td>AGA214</td>
<td>Cash Grains -OR- Elective</td>
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<td>AGB101</td>
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<td>AGB303</td>
<td>Agriculture Leadership -OR- Elective</td>
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<td>Precision Farming Systems -OR-</td>
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<td>CET233</td>
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<td>CHM165  General Chemistry I</td>
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<td>ENV115  Environmental Science</td>
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Agricultural Business Management – General Agriculture Courses

Award: Diploma
Program Start: Fall, Spring, Summer
Enrollment Status: Full-time or part-time

The General Agriculture - Diploma program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

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<td>AGC103</td>
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<td>Survey of the Animal Industry</td>
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<td>CNS121</td>
<td>Environmental Conservation</td>
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<td>Composition I -OR-</td>
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**Total Credits 18**

**Semester 2**

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<td>Fundamentals of GIS</td>
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<td>AGS319</td>
<td>Animal Nutrition</td>
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<td>PSY102</td>
<td>Human and Work Relations -OR-</td>
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<td>SPC101</td>
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**View Course Descriptions**

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View Course Descriptions
**Precision Agriculture Certificate Courses**

**Award:** Certificate  
**Program Start:** Fall, Spring, Summer  
**Enrollment Status:** Full-time or part-time

The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

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<thead>
<tr>
<th>Semester 1</th>
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<tbody>
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<td>AGA114</td>
<td>Principles of Agronomy</td>
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<tr>
<td>AGA154</td>
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<tbody>
<tr>
<td>AGP333</td>
<td>Precision Farming Systems</td>
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<tr>
<td>AGP436</td>
<td>Advanced Precision Farm Hardware</td>
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<tr>
<td>View Course Descriptions</td>
<td>Total Credits 6</td>
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</table>

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Maintained by Public Relations and Marketing
Animal Science

The Animal Science program provides students opportunities to develop skills and knowledge required for entering a career in animal science and transferring to the university level.

Students gain hands-on training on Hawkeye’s 400-acre Farm Lab in the latest production and management techniques. Students participate in livestock judging teams, field trips, and presentations from industry representatives.

Veterinary Assisting is a three-semester, diploma option of the Animal Science program.

Experience and Training

The Animal Science eight-week Employment Experience allows students to gain real work experience at an employment site. This ensures students gain the skills they need to succeed on the job.

Transfer Information

Many state and private colleges and universities accept up to 65 credit hours. For more information, contact a program advisor.
Animal Science Careers

Graduates find employment working in:

- livestock production
- livestock sales and marketing
- livestock processing
- animal genetics

Placement
Starting Wages: $25,000 - $35,000 per year*

*As reported by the Agriculture and Natural Resources department.

Employers

<table>
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<tr>
<th>Company</th>
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<td>Quincy, IL</td>
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<tr>
<td>Heartland Co-op</td>
<td>West Des Moines, IA</td>
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<tr>
<td>JBS Swift &amp; Co.</td>
<td>Marshalltown, IA</td>
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<tr>
<td>Tyson Fresh Meats, Inc.</td>
<td>Waterloo, IA</td>
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<td>USDA Food Safety Inspection Service</td>
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</table>

Program Contacts

Department Secretary
Dianne Lellig
Butler Hall 104
319-296-4011
Email me

Program Advisors
Ole Cleveland
Bremer Hall 101-B
319-296-2329 ext.1414
Email me

Dresden Wulf
Bremer Hall 101-E
319-296-2329 ext.1084
Email me

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me
Animal Science Admission Requirements

1. Be a high school graduate or equivalent. [High School Diploma Verification Process]

2. Apply at Hawkeye.

3. Meet basic skill competencies in reading, writing, and math.

   Basic skill competencies assessment provides information about your academic skills in reading, writing, and math. This information will be used to determine your acceptance, course selection, and registration.

   For general admission to Hawkeye Community College, students must provide assessment scores in reading, math, and writing.

   College success courses may be required if your assessment score indicates additional help is needed.

   For course placement recommendations, based on your assessment score, review the Assessment Scores and Course Equivalences.

   **Accepted Assessments**
   - ACT
   - COMPASS
   - ASSET
   - SAT
   - ACCUPLACER (effective Spring 2014)

   **Previous College Experience**
   Assessment may be waived based on previous college course work in reading, math, and writing. Send your official college transcripts to the Admissions office for evaluation.

Hawkeye's Equal Opportunity Statement
### Animal Science Courses

**Award:** Associate of Applied Science (AAS)  
**Program Start:** Fall, Spring  
**Enrollment Status:** Full-time or part-time

The AAS degree program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

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**View Course Descriptions**

**Total Credits 18**

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**Program Options**

- **AAS degree**
- **General Agriculture - Diploma**

**Program Contacts**

**Department Secretary**  
Dianne Lellig  
Butler Hall 104  
319-296-4011  
Email me

**Program Advisors**  
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319-296-2329 ext.1084  
Email me

**Dean**  
Ray Beets  
Butler Hall 104-A  
319-296-4042  
Email me
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View Course Descriptions

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View Course Descriptions
# Animal Science Courses

**Award:** Associate of Applied Science (AAS)  
**Program Start:** Fall, Spring  
**Enrollment Status:** Full-time or part-time

The AAS degree program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

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<tr>
<td>PHY212</td>
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<tr>
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View Course Descriptions
Animal Science – General Agriculture Courses

Award: Diploma
Program Start: Fall, Spring
Enrollment Status: Full-time or part-time

The General Agriculture - Diploma program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

### Semester 1

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<tr>
<th>Course Code</th>
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<tr>
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<tr>
<td>AGS113</td>
<td>Survey of the Animal Industry</td>
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<tr>
<td>AGS305</td>
<td>Livestock Evaluation</td>
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<tr>
<td>PSY102</td>
<td>Human and Work Relations -OR-</td>
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<tr>
<td>PSY111</td>
<td>Introduction to Psychology -OR-</td>
<td>3</td>
</tr>
<tr>
<td>SOC110</td>
<td>Introduction to Sociology -OR-</td>
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<td>SPC101</td>
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**View Course Descriptions**

| Total Credits | 19 |

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<td>AGA114</td>
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<td>AGA154</td>
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<td>AGS319</td>
<td>Animal Nutrition</td>
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<td>Composition I -OR-</td>
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<td>COM781</td>
<td>Written Communication in the Workplace</td>
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<td>MAT772</td>
<td>Applied Math -OR-</td>
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**Program Options**

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<td>MAT 122</td>
<td>College Algebra</td>
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<td>3</td>
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<tr>
<td>MAT 156</td>
<td>Statistics</td>
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<td>MAT 210</td>
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<td>MAT 219</td>
<td>Calculus III</td>
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<td>BIO 112</td>
<td>General Biology I</td>
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<td>BIO 113</td>
<td>General Biology II</td>
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<td>BIO 150</td>
<td>Fundamentals of Nutrition</td>
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<tr>
<td>BIO 163</td>
<td>Essentials of Anatomy and Physiology</td>
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<td>BIO 168</td>
<td>Human Anatomy and Physiology I with Lab</td>
<td>4</td>
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<tr>
<td>BIO 185</td>
<td>Microbiology with lab</td>
<td>3</td>
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<td>CHM 122</td>
<td>Introduction to General Chemistry</td>
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<tr>
<td>CHM 132</td>
<td>Introduction to Organic and Biochemistry</td>
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<td>CHM 165</td>
<td>General Chemistry I</td>
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<td>ENV 115</td>
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<td>GEO 131</td>
<td>Physical Geography</td>
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<td>PHS 120</td>
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<td>PHS 142</td>
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<td>College Physics II</td>
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<td>PHY 212</td>
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<tr>
<td>PHY 222</td>
<td>Classical Physics II</td>
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</table>
Horticulture Science

The Horticulture Science program provides students with the knowledge and skills to enter into various careers such as golf course management, sports turf management, landscape design, landscape installation, and grounds production. Educational diversity creates an added advantage for students in learning about Horticulture Science. As a member of the PLANET organization, students have an opportunity to travel and compete nationally in Student Career Days.

Experience and Training
The Horticulture Science's eight-week Employment Experience allows students to gain real work experience on-site at an employer. This ensures students gain the skills they need to succeed on the job.

Transfer Information
Hawkeye Community College's Agriculture and Natural Resources programs have articulation agreements with Iowa State University, Upper Iowa University, Mount Mercy University, and Northwest Missouri State University to transfer both general education and technical credits. Many other state and private colleges and universities accept up to 65 credit hours. For more information, contact a program advisor.
Horticulture Science Careers

Careers in Horticulture Science include:

- golf course management
- sports turf manager
- landscape design
- landscape installation
- grounds maintenance
- lawn care
- garden center manager
- greenhouse production

Placement
Starting Wages: $19,000 - $28,000 per year*

*Source: Iowa Workforce Development

Employers

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<thead>
<tr>
<th>Employer</th>
<th>Location</th>
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<tbody>
<tr>
<td>Bear Creek Landscaping</td>
<td>Cedar Falls, IA</td>
</tr>
<tr>
<td>Beaver Hills Country Club</td>
<td>Cedar Falls, IA</td>
</tr>
<tr>
<td>Cedar Falls Parks &amp; Recreation</td>
<td>Cedar Falls, IA</td>
</tr>
<tr>
<td>Elmcrest Country Club</td>
<td>Cedar Rapids, IA</td>
</tr>
<tr>
<td>Iowa Cubs</td>
<td>Des Moines, IA</td>
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<tr>
<td>Matthias Landscaping</td>
<td>Cedar Falls, IA</td>
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<tr>
<td>Minnesota Vikings</td>
<td>Minneapolis, MN</td>
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<tr>
<td>Sunnyside Country Club</td>
<td>Waterloo, IA</td>
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<tr>
<td>Wapsie Pines Landscaping</td>
<td>Dunkerton, IA</td>
</tr>
<tr>
<td>Waterloo Leisure Services</td>
<td>Waterloo, IA</td>
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</tbody>
</table>

Many graduates have become self-employed and own successful businesses.
Horticulture Science Admission Requirements

1. Be a high school graduate or equivalent.  
   [High School Diploma Verification Process]

2. Apply at Hawkeye.

3. Meet basic skill competencies in reading, writing, and math.
   
   Basic skill competencies assessment provides information about your academic skills in reading, writing, and math. This information will be used to determine your acceptance, course selection, and registration.

   For general admission to Hawkeye Community College, students must provide assessment scores in reading, math, and writing.

   College success courses may be required if your assessment score indicates additional help is needed.

   For course placement recommendations, based on your assessment score, review the [Assessment Scores and Course Equivalences].

   Accepted Assessments
   - ACT
   - COMPASS
   - ASSET
   - SAT
   - ACCUPLACER (effective Spring 2014)

   Previous College Experience
   Assessment may be waived based on previous college course work in reading, math, and writing. Send your official college transcripts to the Admissions office for evaluation.

Hawkeye's Equal Opportunity Statement
Horticulture Science Courses

Award: Associate of Applied Science (AAS)  
Program Start: Fall, Spring  
Enrollment Status: Full-time or part-time

The AAS degree program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

<table>
<thead>
<tr>
<th>Semester 1</th>
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<tbody>
<tr>
<td><strong>AGA154</strong></td>
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<td><strong>AGC103</strong></td>
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<tr>
<td><strong>CSC110</strong></td>
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<tr>
<td><strong>AGH112</strong></td>
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<td><strong>AGH221</strong></td>
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<tr>
<td><strong>AGH280</strong></td>
</tr>
<tr>
<td><strong>ENG105</strong></td>
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<tr>
<td><strong>COM781</strong></td>
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<table>
<thead>
<tr>
<th>Semester 2</th>
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<td><strong>AGA376</strong></td>
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<td><strong>AGH222</strong></td>
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<tr>
<td><strong>MAT110</strong></td>
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<tr>
<td><strong>MAT772</strong></td>
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<td><strong>MAT122</strong></td>
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<td><strong>MAT156</strong></td>
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<tr>
<td><strong>PSY102</strong></td>
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<td><strong>PSY111</strong></td>
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<thead>
<tr>
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<table>
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<tr>
<th>Program Options</th>
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<tbody>
<tr>
<td><strong>AAS degree</strong></td>
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<tr>
<td><strong>Landscape Option - AAS degree</strong></td>
</tr>
<tr>
<td><strong>Turf Option - AAS degree</strong></td>
</tr>
<tr>
<td><strong>Diploma</strong></td>
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Program Contacts

Department Secretary  
Dianne Lellig  
Butler Hall 104  
319-296-4011  
Email me

Program Advisors  
Dan Lichty  
Bremer Hall 101-H  
319-296-2329 ext.1316  
Email me

Scott Harvey  
Bremer Hall 101-H  
319-296-2329 ext.1366  
Email me

Dean  
Ray Beets  
Butler Hall 104-A  
319-296-4042  
Email me
### Semester 3 – Summer (optional)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>AGT805</td>
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**Total Credits 5**

* AGT805 can be taken as an elective in your 2nd, 3rd, or 4th semester.

### Semester 4

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<td>AGH122</td>
<td>Woody Plant Materials</td>
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</tr>
<tr>
<td>AGH322</td>
<td>Plant Propagation II</td>
<td>2</td>
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<tr>
<td>SPC101</td>
<td>Fundamentals of Oral Communication</td>
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<td></td>
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**Total Credits 16**

### Semester 5

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<tbody>
<tr>
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**Total Credits 9**

### Horticulture Electives – Group 1

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<td>ADM222</td>
<td>Career Capstone</td>
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<td>AGA284</td>
<td>Pesticide Application Certification</td>
<td>3</td>
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<tr>
<td>AGP340</td>
<td>Foundations of GIS and GPS</td>
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<tr>
<td>AGT805</td>
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**Total Credits 12**

### Horticulture Electives – Group 2

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**Total Credits 3**
Horticulture Science – Landscape Option Courses

**Award:** Associate of Applied Science (AAS)

**Program Start:** Fall, Spring

**Enrollment Status:** Full-time or part-time

The **Landscape Option - AAS degree program** requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>AGA154</td>
<td>Fundamentals of Soil Science</td>
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<td>AGC103</td>
<td>Ag Computer -OR-</td>
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<td>Introduction to Turfgrass Management</td>
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<td>AGH221</td>
<td>Principles of Horticulture</td>
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<td>AGH280</td>
<td>Botany for Horticulture</td>
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<td>ENG105</td>
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<td>COM781</td>
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*View Course Descriptions*  
**Total Credits 18**

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<td>Plant Propagation I</td>
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<td>MAT772</td>
<td>Applied Math -OR- Math Elective</td>
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<td>PSY102</td>
<td>Human and Work Relations -OR-</td>
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*Horticulture Elective*  

*View Course Descriptions*  
**Total Credits 19**

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* AGT805 can be taken as an elective in your 2nd, 3rd, or 4th semester.

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<td>AGH322 Plant Propagation II</td>
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<td>MAT219 Calculus III</td>
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<tr>
<td>Agriculture - Horticulture (AGH) Course</td>
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<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>View Course Descriptions</td>
<td></td>
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</tbody>
</table>
Horticulture Science – Turf Option Courses

Award: Associate of Applied Science (AAS)
Program Start: Fall, Spring
Enrollment Status: Full-time or part-time

The Turf Option - AAS degree program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

<table>
<thead>
<tr>
<th>Semester 1</th>
<th></th>
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<tbody>
<tr>
<td>AGA154 Fundamentals of Soil Science</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>AGC103 Ag Computer -OR-</td>
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<tr>
<td>CSC110 Introduction to Computers</td>
<td>3</td>
<td></td>
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<tr>
<td>AGH112 Introduction to Turfgrass Management</td>
<td>3</td>
<td></td>
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<tr>
<td>AGH221 Principles of Horticulture</td>
<td>3</td>
<td></td>
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<tr>
<td>AGH280 Botany for Horticulture</td>
<td>3</td>
<td></td>
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<tr>
<td>ENG105 Composition I -OR-</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COM781 Written Communication in the Workplace</td>
<td>3</td>
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<td></td>
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<thead>
<tr>
<th>Semester 2</th>
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<tbody>
<tr>
<td>AGA376 Integrated Pest Management</td>
<td>3</td>
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<tr>
<td>AGH222 Plant Propagation I</td>
<td>2</td>
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<tr>
<td>MAT772 Applied Math -OR-</td>
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<tr>
<td>PSY102 Human and Work Relations -OR-</td>
<td>3</td>
<td></td>
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<tr>
<td>PSY111 Introduction to Psychology -OR-</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SOC110 Introduction to Sociology</td>
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<tr>
<td>Horticulture Elective</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total Credits 19</td>
</tr>
</tbody>
</table>

Program Contacts

Department Secretary
Dianne Lellig
Butler Hall 104
319-296-4011
Email me

Program Advisors
Dan Lichty
Bremer Hall 101-H
319-296-2329 ext.1316
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Scott Harvey
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319-296-2329 ext.1366
Email me

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me
### Semester 3 – Summer (optional)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>AGT805</td>
<td>Employment Experience *</td>
<td>5</td>
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* AGT805 can be taken as an elective in your 2nd, 3rd, or 4th semester.

### Semester 4

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>AGH122</td>
<td>Woody Plant Materials</td>
<td>2</td>
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<tr>
<td>AGH322</td>
<td>Plant Propagation II</td>
<td>2</td>
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<tr>
<td>SPC101</td>
<td>Fundamentals of Oral Communication</td>
<td>3</td>
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<tr>
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**Total Credits: 16**

### Semester 5

<table>
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<td>AGB331</td>
<td>Entrepreneurship in Agriculture</td>
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**Total Credits: 12**

### Math Electives

<table>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MAT110</td>
<td>Math for Liberal Arts</td>
<td>3</td>
</tr>
<tr>
<td>MAT122</td>
<td>College Algebra</td>
<td>5</td>
</tr>
<tr>
<td>MAT128</td>
<td>Precalculus</td>
<td>4</td>
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<tr>
<td>MAT134</td>
<td>Trigonometry and Analytic Geometry</td>
<td>3</td>
</tr>
<tr>
<td>MAT156</td>
<td>Statistics</td>
<td>3</td>
</tr>
<tr>
<td>MAT210</td>
<td>Calculus I</td>
<td>4</td>
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<tr>
<td>MAT216</td>
<td>Calculus II</td>
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<tr>
<td>MAT219</td>
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**Total Credits: 12**

### Horticulture Electives

<table>
<thead>
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<th>Course Title</th>
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<tbody>
<tr>
<td>ADM222</td>
<td>Career Capstone</td>
<td>3</td>
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<tr>
<td>AGA284</td>
<td>Pesticide Application Certification</td>
<td>3</td>
</tr>
<tr>
<td>AGP340</td>
<td>Foundations of GIS and GPS</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Agriculture - Horticulture (AGH) Course</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits: 12**
Horticulture Science – Diploma Courses

Award: Diploma
Program Start: Fall, Spring
Enrollment Status: Full-time or part-time

The Diploma program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

<table>
<thead>
<tr>
<th>Semester 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>AGC103 Ag Computer -OR-</td>
<td>3</td>
</tr>
<tr>
<td>CSC110 Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>AGH112 Introduction to Turfgrass Management</td>
<td>3</td>
</tr>
<tr>
<td>AGH140 Equipment Operations</td>
<td>2</td>
</tr>
<tr>
<td>AGH280 Botany for Horticulture</td>
<td>3</td>
</tr>
<tr>
<td>ENG105 Composition I -OR-</td>
<td>3</td>
</tr>
<tr>
<td>COM781 Written Communication in the Workplace</td>
<td>3</td>
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<td>Total Credits</td>
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</table>

<table>
<thead>
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</thead>
<tbody>
<tr>
<td>AGA284 Pesticide Application Certification</td>
<td>3</td>
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<tr>
<td>AGA376 Integrated Pest Management</td>
<td>3</td>
</tr>
<tr>
<td>AGH119 Herbaceous Plant Materials</td>
<td>2</td>
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<tr>
<td>AGH222 Plant Propagation I</td>
<td>2</td>
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<tr>
<td>AGH270 Nursery Production</td>
<td>2</td>
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<tr>
<td>AGH425 Grounds Maintenance</td>
<td>3</td>
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<tr>
<td>PSY102 Human and Work Relations -OR-</td>
<td>3</td>
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<tr>
<td>PSY111 Introduction to Psychology -OR-</td>
<td>3</td>
</tr>
<tr>
<td>SOC110 Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>Total Credits</td>
<td>18</td>
</tr>
</tbody>
</table>

Program Contacts
Department Secretary
Dianne Lellig
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Program Advisors
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319-296-4042
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Natural Resources Management

The Natural Resources Management program enables students to learn about the physical aspects of managing natural areas as well as the theory behind the procedures. Students develop the necessary skills and certifications for entering careers as natural resources technicians through a combination of classroom instruction, laboratory activities, and an eight-week cooperative work experience.

A trademark of the program is the Advanced Outdoor Recreation Techniques class. Within this class, students travel to the Boundary Waters Canoe Wilderness Area or the Bighorn Mountains in Wyoming to gain experience in wilderness ethics, orienteering, canoeing, portaging, camping, and much more.

Transfer Information

Hawkeye Community College's Agriculture and Natural Resources programs have articulation agreements with Iowa State University, and Upper Iowa University to transfer both general education and technical credits. Many other state and private colleges and universities accept up to 65 credit hours. For more information, contact a program advisor.

Events

The Natural Resources Management program hosts many special events, both on and off campus. They include:

• Wilderness trip to the Bighorn Mountains and visit to Yellowstone in August for second year students.

• Wilderness trip to the Boundary Waters Canoe Area in September for second year students.

• Canoe trip and campout for first year students in September.

• Stihl chain saw safety training and certification in September.

• Clear Lake fish seining with the Iowa DNR Fisheries in September.
• Prescribed prairie burns in October.

• Timber stand improvement projects in October.

• Attendance at the Iowa County Conservation Board “Winterfest” Conference in January.

• Necropsy of river otters and bobcats with the Iowa DNR in February.

• Telemetry “hunt” for the endangered Massasauga Rattlesnake in April.

• Two day “Leave No Trace” training and certification in April to prepare students for their adventure into the wilderness the following semester.

• Prescribed prairie burns in April

• Fish shocking and sampling with the Iowa DNR in April.

• Trumpeter swan roundup with the Iowa DNR in April.
Natural Resources Management Careers

Careers in Natural Resources Management include:

• roadside management
• vegetation management
• wildlife technician
• wildlife management
• environmental education
• native plant nurseries
• parks and recreation
• naturalist
• soil conservation technician

Placement
Starting Wages: $26,000 - $34,500 per year*

*Source: Iowa Workforce Development

Employers

<table>
<thead>
<tr>
<th>Employer</th>
<th>Location</th>
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<tbody>
<tr>
<td>Absolute Energy</td>
<td>Osage, IA</td>
</tr>
<tr>
<td>Buchanan County Secondary Roads</td>
<td>Independence, IA</td>
</tr>
<tr>
<td>Cerro Gordo County Conservation Board</td>
<td>Mason City, IA</td>
</tr>
<tr>
<td>Clayton County Parks</td>
<td>Elkader, IA</td>
</tr>
<tr>
<td>Feder's Prairie Seed</td>
<td>Blue Earth, MN</td>
</tr>
<tr>
<td>Grundy County Conservation Board</td>
<td>Grundy Center, IA</td>
</tr>
<tr>
<td>Hardin County Conservation Board</td>
<td>Iowa Falls, IA</td>
</tr>
<tr>
<td>Iowa Department of Natural Resources</td>
<td>Manchester, IA and other locations</td>
</tr>
<tr>
<td>Montana Fish &amp; Game</td>
<td>Libby, MT</td>
</tr>
</tbody>
</table>

Program Contacts

Department Secretary
Dianne Lellig
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319-296-4011
Email me

Program Advisor
Terri Rogers
Bremer Hall 101-G
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Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me
Natural Resources Management Admission Requirements

1. Be a high school graduate or equivalent.  
   High School Diploma Verification Process.

2. Apply at Hawkeye.

3. Meet basic skill competencies in reading, writing, and math.

   Basic skill competencies assessment provides information about your academic skills in reading, writing, and math. This information will be used to determine your acceptance, course selection, and registration.

   For general admission to Hawkeye Community College, students must provide assessment scores in reading, math, and writing.

   College success courses may be required if your assessment score indicates additional help is needed.

   For course placement recommendations, based on your assessment score, review the Assessment Scores and Course Equivalences.

   Accepted Assessments
   ◦ ACT
   ◦ COMPASS
   ◦ ASSET
   ◦ SAT
   ◦ ACCUPLACER (effective Spring 2014)

   Previous College Experience
   Assessment may be waived based on previous college course work in reading, math, and writing. Send your official college transcripts to the Admissions office for evaluation.

Hawkeye's Equal Opportunity Statement
Natural Resources Management Courses

Award: Associate of Applied Science (AAS)
Program Start: Fall, Spring
Enrollment Status: Full-time or part-time

The AAS degree program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

<table>
<thead>
<tr>
<th>Semester 1</th>
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<tbody>
<tr>
<td>AGC103</td>
<td>Ag Computer -OR- 3</td>
</tr>
<tr>
<td>CNS107</td>
<td>Outdoor Recreation Techniques 1</td>
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<tr>
<td>CNS108</td>
<td>Wildlife Identification 3</td>
</tr>
<tr>
<td>CNS121</td>
<td>Environmental Conservation 3</td>
</tr>
<tr>
<td>CNS204</td>
<td>Native Vegetation 3</td>
</tr>
<tr>
<td>ENG105</td>
<td>Composition I -OR- 3</td>
</tr>
<tr>
<td>COM781</td>
<td>Written Communication in the Workplace 3</td>
</tr>
<tr>
<td><strong>View Course Descriptions</strong></td>
<td><strong>Total Credits 16</strong></td>
</tr>
</tbody>
</table>

* Select any 3 credit course. This course is included in your tech core and is not considered part of your 12 credits of general education requirements toward your degree.

<table>
<thead>
<tr>
<th>Semester 2</th>
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<tbody>
<tr>
<td>AGH140</td>
<td>Equipment Operations 2</td>
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<tr>
<td>CNS106</td>
<td>Wildlife Ecology 4</td>
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<tr>
<td>CNS143</td>
<td>Fire Management 3</td>
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<tr>
<td>MAT122</td>
<td>College Algebra -OR- 5</td>
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<tr>
<td>PSY111</td>
<td>Introduction to Psychology -OR- 3</td>
</tr>
<tr>
<td>PSY102</td>
<td>Human and Work Relations -OR- 3</td>
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<tr>
<td>SOC110</td>
<td>Introduction to Sociology 3</td>
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<td><strong>View Course Descriptions</strong></td>
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<td>SPC101</td>
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**Total Credits 8**

Courses required for graduation, but can be taken any term.

### Semester 4

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<td>Pesticide Application Certification -OR-</td>
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<tr>
<td>BIO112</td>
<td>General Biology I</td>
<td>4</td>
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<tr>
<td>AGP340</td>
<td>Foundations of GIS and GPS -OR-</td>
<td>3</td>
</tr>
<tr>
<td>SOC205</td>
<td>Diversity in America</td>
<td>3</td>
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<tr>
<td>CNS136</td>
<td>Aquatic Management -OR-</td>
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<td>ENG106</td>
<td>Composition II</td>
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<td>CNS138</td>
<td>Woodland Management -OR-</td>
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<td>ENG106</td>
<td>Composition II</td>
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<td>CNS205</td>
<td>Advanced Outdoor Recreation Techniques</td>
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<td>Natural Areas Management</td>
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**Total Credits 16**

### Semester 5

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<tr>
<td>AGA154</td>
<td>Fundamentals of Soil Science -OR-</td>
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<td>BIO113</td>
<td>General Biology II</td>
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<td>CNS201</td>
<td>Conservation Biology</td>
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<td>CNS231</td>
<td>Integrated Roadside Vegetation Management -OR-</td>
<td>2</td>
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<tr>
<td>CNS134</td>
<td>Wildlife Management -OR-</td>
<td>4</td>
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<td>PHI105</td>
<td>Introduction to Ethics -OR-</td>
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<td>CNS929</td>
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**Total Credits 9**

### Math Electives

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<tr>
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<td>Math for Liberal Arts</td>
<td>3</td>
</tr>
<tr>
<td>MAT128</td>
<td>Precalculus</td>
<td>4</td>
</tr>
<tr>
<td>MAT134</td>
<td>Trigonometry and Analytic Geometry</td>
<td>3</td>
</tr>
<tr>
<td>MAT156</td>
<td>Statistics</td>
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</tr>
<tr>
<td>MAT210</td>
<td>Calculus I</td>
<td>4</td>
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<tr>
<td>MAT216</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MAT219</td>
<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>MAT772</td>
<td>Applied Math</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits 9**
# Natural Resources Management – Transfer Courses

**Award:** Associate of Applied Science (AAS)

**Program Start:** Fall, Spring

**Enrollment Status:** Full-time or part-time

The **Transfer - AAS degree program** requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

**If you are a current student** your program requirements may be different than those listed for the current catalog year. Visit [View your Program Evaluation](#) to see your specific program requirements and to search and register for classes.

## Semester 1

<table>
<thead>
<tr>
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<th>Course Name</th>
<th>Credits</th>
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</thead>
<tbody>
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<td>Outdoor Recreation Techniques</td>
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</tr>
<tr>
<td>CNS108</td>
<td>Wildlife Identification</td>
<td>3</td>
</tr>
<tr>
<td>CNS121</td>
<td>Environmental Conservation</td>
<td>3</td>
</tr>
<tr>
<td>CNS204</td>
<td>Native Vegetation</td>
<td>3</td>
</tr>
<tr>
<td>ENG105</td>
<td>Composition I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Any 3 credit course *</td>
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</tr>
</tbody>
</table>

**View Course Descriptions**  
Total Credits 16

* Select any 3 credit course. This course is included in tech core and is not considered part of your 12 credits of general education requirements toward your degree.

## Semester 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>AGH140</td>
<td>Equipment Operations -OR-</td>
<td>2</td>
</tr>
<tr>
<td>CHM165</td>
<td>General Chemistry I -OR-</td>
<td>4</td>
</tr>
<tr>
<td>CHM122</td>
<td>Introduction to General Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CNS106</td>
<td>Wildlife Ecology</td>
<td>4</td>
</tr>
<tr>
<td>CNS143</td>
<td>Fire Management -OR-</td>
<td>3</td>
</tr>
<tr>
<td>CHM165</td>
<td>General Chemistry I -OR-</td>
<td>4</td>
</tr>
<tr>
<td>CHM122</td>
<td>Introduction to General Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>MAT110</td>
<td>Math for Liberal Arts -OR-</td>
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<tr>
<td>SOC110</td>
<td>Introduction to Sociology</td>
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</tbody>
</table>

## Program Contacts

**Department Secretary**  
Dianne Lellig  
Butler Hall 104  
319-296-4011  
Email me

**Program Advisor**  
Terri Rogers  
Bremer Hall 101-G  
319-296-2329 ext.1311  
Email me

**Dean**  
Ray Beets  
Butler Hall 104-A  
319-296-4042  
Email me
<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>SPC101</td>
<td>Fundamentals of Oral Communication</td>
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<tr>
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<td>CNS138</td>
<td>Woodland Management -OR-</td>
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<td>CNS205</td>
<td>Advanced Outdoor Recreation Techniques</td>
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<td>CNS228</td>
<td>Natural Areas Management</td>
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<td>SOC205</td>
<td>Diversity in America -OR-</td>
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<td>AGP340</td>
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View Course Descriptions

Total Credits 17

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<td>CNS231</td>
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<td>PHI105</td>
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<td>CNS929</td>
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<td>MAT122</td>
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**Math Elective**

View Course Descriptions

Total Credits 15

### Math Electives

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<tr>
<td>MAT219</td>
<td>Calculus III</td>
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</tr>
</tbody>
</table>

View Course Descriptions

College Catalog | Next Page >
Natural Resources Management – Diploma Courses

Award: Diploma  
Program Start: Fall, Spring  
Enrollment Status: Full-time or part-time

The Diploma program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

<table>
<thead>
<tr>
<th>Semester 1</th>
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<td>View Course Descriptions</td>
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<td>Total Credits</td>
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* Select any 3 credit course. This course is included in tech core and is not considered part of your 12 credits of general education requirements toward your degree.

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<td>AGH140</td>
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<td>CHM165</td>
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<td>PSY111</td>
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<td></td>
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<tr>
<td>Introduction to Psychology -OR-</td>
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<td></td>
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</tr>
</tbody>
</table>

Program Options

- AAS degree
- Transfer - AAS degree
- Diploma
- Certificate

Program Contacts

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Dianne Lellig  
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Dean  
Ray Beets  
Butler Hall 104-A  
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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC110</td>
<td>Introduction to Sociology</td>
<td>3</td>
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<tr>
<td>SPC101</td>
<td>Fundamentals of Oral Communication</td>
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<tr>
<td>Total Credits</td>
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**Math Electives**

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>MAT110</td>
<td>Math for Liberal Arts</td>
<td>3</td>
</tr>
<tr>
<td>MAT122</td>
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<td>Calculus II</td>
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<tr>
<td>MAT219</td>
<td>Calculus III</td>
<td>4</td>
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</tbody>
</table>
Natural Resources Management – Certificate Courses

Award: Certificate
Program Start: Fall, Spring
Enrollment Status: Full-time or part-time

The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

<table>
<thead>
<tr>
<th>Semester 1</th>
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</thead>
<tbody>
<tr>
<td>AGC103</td>
<td>Ag Computer -OR-</td>
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<tr>
<td></td>
<td>Any 3 credit course *</td>
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</tr>
<tr>
<td>CNS107</td>
<td>Outdoor Recreation Techniques</td>
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</tr>
<tr>
<td>CNS108</td>
<td>Wildlife Identification</td>
<td>3</td>
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<td>CNS121</td>
<td>Environmental Conservation</td>
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</tr>
<tr>
<td>CNS204</td>
<td>Native Vegetation</td>
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</tbody>
</table>

* Select any 3 credit course. This course is included in tech core and is not considered part of your 12 credits of general education requirements toward your degree.

Total Credits 13

College Catalog | Next Page >
Veterinary Assisting

This Veterinary Assisting program provides students opportunities to develop skills and knowledge required for entering a career as a veterinary assistant.

Students develop knowledge and an understanding in livestock production and companion animals through classroom instruction, hands-on labs, employment experience, field trips, and industry speakers. Students receive instruction in companion animals and domesticated livestock, as well as anatomy and physiology, nutrition, and veterinary terminology.

Hawkeye’s 400-acre Farm Lab utilizes new and up-to-date facilities and equipment to provide students hands-on experience with the latest production and management techniques. Included on this site is a laboratory for vet assisting courses.

Veterinary Assisting is a three-semester, diploma option of the Animal Science program.

Experience and Training
The Vet Assisting eight-week Employment Experience allows students to gain real work experience at an employment site. This ensures students acquire the skills they need to succeed on the job.
Veterinary Assisting Careers

Placement
Starting wages - $18,500 - $24,000 per year*

*Source: Iowa Workforce Development

Employers

<table>
<thead>
<tr>
<th>Employer</th>
<th>Location</th>
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<tbody>
<tr>
<td>Brookside Veterinary Hospital</td>
<td>Cedar Falls, IA</td>
</tr>
<tr>
<td>Den Herder Veterinary Hospital</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>Keepers of the Wild Nature Park &amp; Animal Sanctuary</td>
<td>Valentine, AZ</td>
</tr>
<tr>
<td>Klima Small Animal Clinic</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>PetSmart</td>
<td>Waterloo, IA</td>
</tr>
</tbody>
</table>

Program Contacts

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Ray Beets
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319-296-4042
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Veterinary Assisting Admission Requirements

1. Be a high school graduate or equivalent. [High School Diploma Verification Process]

2. Apply at Hawkeye.

3. Meet basic skill competencies in reading, writing, and math.

   Basic skill competencies assessment provides information about your academic skills in reading, writing, and math. This information will be used to determine your acceptance, course selection, and registration.

   For general admission to Hawkeye Community College, students must provide assessment scores in reading, math, and writing.

   College success courses may be required if your assessment score indicates additional help is needed.

   For course placement recommendations, based on your assessment score, review the Assessment Scores and Course Equivalences.

   Accepted Assessments
   - ACT
   - COMPASS
   - ASSET
   - SAT
   - ACCUPLACER (effective Spring 2014)

   Previous College Experience
   Assessment may be waived based on previous college course work in reading, math, and writing. Send your official college transcripts to the Admissions office for evaluation.

Hawkeye’s Equal Opportunity Statement
Veterinary Assisting Courses

**Award:** Diploma  
**Program Start:** Fall, Spring  
**Enrollment Status:** Full-time or part-time

The Veterinary Assisting program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

### Semester 1

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<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<td>AGS211</td>
<td>Issues Facing Animal Science</td>
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<td>AGS218</td>
<td>Domestic Animal Physiology</td>
<td>4</td>
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<tr>
<td>AGS319</td>
<td>Animal Nutrition</td>
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<tr>
<td>AGV154</td>
<td>Veterinary Reception and Administration Skills</td>
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<td>Companion Animal</td>
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<tr>
<td>AGV140</td>
<td>Veterinary Pharmacology</td>
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<td>ENG105</td>
<td>Composition I -OR-</td>
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<tr>
<td>COM781</td>
<td>Written Communication in the Workplace</td>
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[View Course Descriptions]

### Agriculture Electives

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<td>AGA376</td>
<td>Integrated Pest Management</td>
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<td>AGB101</td>
<td>Agricultural Economics</td>
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<td>AGB111</td>
<td>Agriculture Enterprise Lab</td>
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<td>AGB235</td>
<td>Introduction to Agriculture Markets</td>
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<tr>
<td>AGB303</td>
<td>Agriculture Leadership</td>
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<td>AGB331</td>
<td>Entrepreneurship in Agriculture</td>
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<td>AGB336</td>
<td>Agricultural Selling</td>
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<tr>
<td>AGB466</td>
<td>Agricultural Finance</td>
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<td>AGP333</td>
<td>Precision Farming Systems</td>
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<td>AGS272</td>
<td>Foods of Animal Origin</td>
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<tr>
<td>AGT220</td>
<td>AG Research</td>
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</table>

[View Course Descriptions]
Digital Mass Media

The Digital Mass Media program provides students with an in-depth knowledge of the digital media industry and the entry-level skills to enter into a variety of jobs within digital, mass media, and production communication fields. This program is for students who want to be on the cutting edge of digital media technology and are interested in creating and delivering multimedia content.

Through hands-on experience, students learn the skills to shoot digital video and photo; record digital audio; and customize images, videos, podcasts, and social media. They will learn to plan, create, and manage digital content; craft stories, messages, and music for production; and broadcast final over a variety of mediums including the Internet, social media, and television. Instruction will include desktop publishing, ethics and media law, media writing, marketing, and how technology and media affects society.

Transfer Information

Many four-year colleges universities accept a limited number of transfer and elective credits. For more information, contact a program advisor.
Digital Mass Media Careers

Graduates will meet the rapidly increasing demand for a new type of interactive technologist, one with a broad ranging set of skills and one who can conceptualize, create, and deliver.

Emerging job opportunities include:

- multimedia specialists
- video journalists
- music video producers
- digital content specialists
- social media marketers and specialists
- digital advertising specialists
- digital media producers
- multimedia designers

They may also find jobs as:

- web designers
- graphic artists
- sound technicians
- camera operators
- videographers
- photojournalists

Graduates may find employment in:

- large corporation public relations departments
- advertising agencies
- media outlets
- colleges and universities
- web design companies
- health organizations
- non-profit organizations

The U.S. Bureau of Labor Statistics projects a 14% increase in need for multimedia specialists. With shrinking company budgets and advancement in technology, production, and delivery of all types of media, employers are looking to get more bang for their buck by hiring individuals with digital communications training.
Digital Mass Media Admission Requirements

1. Be a high school graduate or equivalent.
   
   High School Diploma Verification Process.

2. Apply at Hawkeye.

3. Meet basic skill competencies in reading, writing, and math.

   Basic skill competencies assessment provides information about your academic skills in reading, writing, and math. This information will be used to determine your acceptance, course selection, and registration.

   For general admission to Hawkeye Community College, students must provide assessment scores in reading, math, and writing.

   College success courses may be required if your assessment score indicates additional help is needed.

   For course placement recommendations, based on your assessment score, review the Assessment Scores and Course Equivalences.

   Accepted Assessments
   - ACT
   - COMPASS
   - ASSET
   - SAT
   - ACCUPLACER (effective Spring 2014)

   Previous College Experience
   Assessment may be waived based on previous college course work in reading, math, and writing. Send your official college transcripts to the Admissions office for evaluation.

Hawkeye's Equal Opportunity Statement
Digital Mass Media Courses

**Award:** Associate of Applied Arts (AAA)

**Program Start:** Fall, Spring, Summer

**Enrollment Status:** Full-time or part-time

The **Digital Mass Media program** requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

### Semester 1

<table>
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<tr>
<th>Course Code</th>
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<td>Video Production I</td>
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View Course Descriptions

Total Credits 15

### Semester 2

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View Course Descriptions

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<td>Basic Photojournalism -OR-</td>
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**View Course Descriptions**

**Total Credits 15**

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<td>MMS117</td>
<td>Social Media for Business -OR-</td>
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<td>Solo Video Journalism -OR-</td>
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<td>SPC101</td>
<td>Fundamentals of Oral Communication</td>
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**View Course Descriptions**

**Total Credits 15**

### Digital Mass Media Electives

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<td>COM148</td>
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<td>ENG221</td>
<td>Creative Writing</td>
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<tr>
<td>GRA133</td>
<td>Desktop Publishing</td>
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<tr>
<td>GRA142</td>
<td>Graphic Imaging</td>
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<tr>
<td>GRA162</td>
<td>Web Page Graphics</td>
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<tr>
<td>GRA196</td>
<td>Design and Layout I</td>
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<td>GRA197</td>
<td>Design and Layout II</td>
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<td>GRA206</td>
<td>Advanced Design and Layout</td>
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<tr>
<td>GRA227</td>
<td>Interactive Multimedia</td>
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<td>GRA238</td>
<td>Web Design and Layout</td>
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<tr>
<td>GRA239</td>
<td>CMS Web Design</td>
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<tr>
<td>MKT110</td>
<td>Principles of Marketing</td>
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<td>MKT140</td>
<td>Principles of Selling</td>
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<td>MKT142</td>
<td>Consumer Behavior</td>
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<td>MKT152</td>
<td>Advertising and Visual Merchandising</td>
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<td>MMS300</td>
<td>Cinematography</td>
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<td>MMS310</td>
<td>Independent Film Production</td>
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<td>MMS320</td>
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<td>MMS400</td>
<td>Video Production for Web Streaming</td>
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<td>PHT210</td>
<td>Visual Communication</td>
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<td>PHT229</td>
<td>Intermediate Photojournalism</td>
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<tr>
<td>PHT242</td>
<td>Audio Visual Presentations</td>
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</table>

[View Course Descriptions]
Graphic Communications

The Graphic Communications program provides students with an advanced level of experience using the leading page layout, drawing, photo editing, interactive multimedia, and Web design software. Students are provided with experience in design and layout, typography, illustration, desktop publishing, web design, and pre-press production processes.

Students interested in this program should:

- have artistic ability,
- have a strong foundation in computer concepts using either a Mac or PC, and
- be able to work in a fast-paced, detail-oriented environment.

Transfer Information

Hawkeye Community College has articulation agreements with Upper Iowa University, Mount Mercy College, and Wartburg College allowing graduates to enter with junior status. The Graphic Communications program has an articulation agreement with the University of Northern Iowa Department of Industrial Technology, which will assist graduates in transferring additional credits.
Graphic Communications Careers

A graphic designer uses visual elements to communicate messages through print and electronic media. Designers may design magazines and newspapers, websites, packaging, promotional displays and marketing materials.

The following are positions or titles held by Graphic Communication program graduates.

- advertising designer
- art director
- brand identity designer
- creative director
- freelance designer
- illustrator
- layout artist
- logo designer
- multimedia designer
- package designer
- photo editing / Photoshop artist
- pre-press technician
- publication designer
- web designer

Placement
Starting Wages: $25,000 - $39,500 per year*

*Source: Iowa Workforce Development

Employers
The following is a partial list of employers who have hired or employ program graduates.

<table>
<thead>
<tr>
<th>Employer</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Almon, Inc.</td>
<td>Dubuque, IA</td>
</tr>
<tr>
<td>Banno</td>
<td>Cedar Falls, IA</td>
</tr>
<tr>
<td>Bertch Cabinets</td>
<td>Waterloo, IA</td>
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<td>CDS Global</td>
<td>Des Moines, IA</td>
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<td>EdgeCore</td>
<td>Cedar Falls, IA</td>
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<td>Fusion Forward</td>
<td>Independence, IA</td>
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<tr>
<td>Hellman Associates, Inc.</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>John Deere</td>
<td>Moline, IL</td>
</tr>
<tr>
<td>JW Morton &amp; Associates</td>
<td>Cedar Rapids, IA</td>
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</table>
Graphic Communications Admission Requirements

Basic Skill Competencies Requirements

Option 1
Score at least the following scores on any combination of the below assessment options:

<table>
<thead>
<tr>
<th>ACT sub scores</th>
<th>COMPASS scores</th>
<th>ASSET scores</th>
<th>ACCUPLACER scores</th>
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<tbody>
<tr>
<td>14 - Math</td>
<td>24 - Pre-Algebra</td>
<td>38 - Numerical</td>
<td>40 - Arithmetic</td>
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<tr>
<td>16 - Reading</td>
<td>69 - Reading</td>
<td>34 - Reading</td>
<td>62 - Reading</td>
</tr>
<tr>
<td>16 - English</td>
<td>41 - Writing</td>
<td>35 - Writing</td>
<td>77 - Sentence Skills</td>
</tr>
</tbody>
</table>

Applicants can take the ACT assessment or the COMPASS assessment at Hawkeye. Pre-registration is required.

Option 2
Complete all of the following college success courses with a "C" grade or higher at Hawkeye Community College or comparable courses at another accredited college:

- ENG060 College Preparatory Writing I
- RDG039 College Preparatory Reading II
- MAT045 Fundamentals of Math

Option 3
Any combination of the above fulfilling the basic skills requirements of algebra, reading, and writing.

Admissions Process

1. Apply for admission.

2. Completed applicant files (we have your application, transcripts, and test scores) will be processed as follows:
   a. Applicants meeting the program's admission requirements will be sent an admissions inactivation letter.
   b. Applicants meeting the program's admission requirements will be accepted.

3. We accept approximately 54-60 students and 20 alternates each Fall Semester. Applicants will be accepted based on the date their completed applicant file. If many students share the same date for completing their applicant files, the application date will be used to prioritize their acceptance.

4. If necessary, alternates will be contacted to fill unconfirmed positions in the program. Alternates will be given priority for the next term.

Hawkeye's Equal Opportunity Statement
Graphic Communications Courses

**Award:** Associate of Applied Arts (AAA)

**Program Start:** Fall, Spring

**Enrollment Status:** Full-time or part-time

The Graphic Communications program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

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<td>GRA105</td>
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<td>ART133</td>
<td>Drawing -AND-</td>
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View Course Descriptions

Total Credits 15

### Semester 2

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View Course Descriptions

Total Credits 16

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View Course Descriptions

Total Credits 16
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**Graphics Communication Electives**

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<td>Advanced Design and Layout</td>
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<td>Principles of Illustration</td>
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<td>GRA231</td>
<td>Photo Direction</td>
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<td>MKT152</td>
<td>Advertising and Visual Merchandising</td>
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<tr>
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<th>Course Title</th>
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<td>Precalculus</td>
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<td>Trigonometry and Analytic Geometry</td>
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<td>MAT156</td>
<td>Statistics</td>
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**Math Electives**

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<td></td>
<td><strong>Total Credits</strong></td>
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</table>

*View Course Descriptions*
The Professional Photography program provides students with a working knowledge of the photography industry. Students are trained for entry-level positions in the fields of commercial, photojournalism, and portraiture photography. The program is recognized as one of the best in the Midwest.

Students learn through classroom activities, live demonstrations, and hands-on experience in Hawkeye’s photography studios, color and black and white processing laboratories, and in the computer imaging laboratory. Instruction in traditional analog and digital technologies provide students with a broad range of skills for employment.

Accreditation
This program is recognized by the Professional Photographers of America.

Transfer Information
Hawkeye's Professional Photography program has articulation agreements with Upper Iowa University and Mount Mercy University allowing graduates to enter to junior status. The Iowa Regent universities accept a limited number of transfer and elective credits. Articulation agreements may assist the graduates in transferring additional credits. For more information, contact a program advisor.
Professional Photography Careers

Our graduates can be employed in many photographic career areas, including:
- professional photographic studios
- professional photographic color labs
- newspapers and magazines
- corporate industrial photography departments
- federal government agencies

Placement
Starting Wages: $17,500 - $27,000 per year*

*Source: Iowa Workforce Development

Employers

<table>
<thead>
<tr>
<th>Deere and Company</th>
<th>Moline, IL</th>
</tr>
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<tbody>
<tr>
<td>Meredith Corporation</td>
<td>Des Moines, IA</td>
</tr>
<tr>
<td>Momento Fine Art Portrait Photography</td>
<td>Savage, MN</td>
</tr>
<tr>
<td>Telegraph Herald</td>
<td>Dubuque, IA</td>
</tr>
<tr>
<td>Waterloo-Cedar Falls Courier</td>
<td>Waterloo, IA</td>
</tr>
</tbody>
</table>

Program Contacts

Department Secretary
Cindi Clark
Black Hawk Hall 177
319-296-4021
Email me

Program Advisors
Larry Erickson
Black Hawk Hall 112
319-296-2329 ext.1292
Email me

Dan Nierling
Black Hawk Hall 141
319-296-2329 ext.1764
Email me

Doug Benton
Black Hawk Hall 119
319-296-2329 ext.1438
Email me

Adam Hunter
Black Hawk Hall 111
319-296-2329 ext.1293
Email me

Dean
Bryan Renfro
Black Hawk Hall 180
319-296-4427
Email me
Professional Photography Admission Requirements

1. Be a high school graduate or equivalent. 
   High School Diploma Verification Process.

2. Apply at Hawkeye.

3. Meet basic skill competencies in reading, writing, and math.
   - Basic skill competencies assessment provides information about your academic skills in reading, writing, and math. This information will be used to determine your acceptance, course selection, and registration.
   
   For general admission to Hawkeye Community College, students must provide assessment scores in reading, math, and writing.
   
   College success courses may be required if your assessment score indicates additional help is needed.
   
   For course placement recommendations, based on your assessment score, review the Assessment Scores and Course Equivalences.

   **Accepted Assessments**
   - ACT
   - COMPASS
   - ASSET
   - SAT
   - ACCUPLACER (effective Spring 2014)

   **Previous College Experience**
   Assessment may be waived based on previous college course work in reading, math, and writing. Send your official college transcripts to the Admissions office for evaluation.

Hawkeye’s Equal Opportunity Statement
Professional Photography – Portrait Courses

**Award:** Associate of Applied Arts (AAA)  
**Program Start:** Fall only

The **Portrait program** requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

**If you are a current student** your program requirements may be different than those listed for the current catalog year. View your **Program Evaluation** to see your specific program requirements and to search and register for classes.

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**Program Contacts**

**Department Secretary**  
Cindi Clark  
Black Hawk Hall 177  
319-296-4021  
Email me

**Program Advisors**  
Larry Erickson  
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Adam Hunter  
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Email me

**Dean**  
Bryan Renfro  
Black Hawk Hall 180  
319-296-4427  
Email me
### Semester 3

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**View Course Descriptions**  
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View Course Descriptions
Professional Photography – Commercial Courses

**Award:** Associate of Applied Arts (AAA)

**Program Start:** Fall only

The **Commercial program** requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

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**View Course Descriptions**

**Total Credits 18**

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**View Course Descriptions**

**Total Credits 18**

**Program Options**

- **Portrait**
- **Commercial**
- **Digital**

**Program Contacts**

- **Department Secretary**
  - Cindi Clark
  - Black Hawk Hall 177
  - 319-296-4021
  - Email me

- **Program Advisors**
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  - Email me
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View Course Descriptions
Professional Photography – Digital Courses

Award: Associate of Applied Arts (AAA)
Program Start: Fall only

The Digital program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

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<td>BUS102 Introduction to Business</td>
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View Course Descriptions

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<td>MAT216 Calculus II</td>
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</tr>
</tbody>
</table>

View Course Descriptions

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Accounting

The Accounting program provides students with a systematic approach to preparing, analyzing, and tracking financial information through the accounts and records of a business. Students gain hands-on experience in Microsoft Excel, Word, Access, Peachtree Accounting, and Quickbooks Pro.

Certification
Graduates may take the national standardized accounting exam to qualify to receive their Licensed Public Accountant (LPA) certification.

Transfer Information
Students completing the Accounting program may transfer to Wartburg College, Upper Iowa University, or Mount Mercy University to complete a bachelor's degree in accounting. For more information, contact a program advisor.
Accounting Careers

The Accounting program offers a variety of employment opportunities. Our graduates find employment in public, private, or governmental accounting or related occupations such as office management and positions with financial institutions. They attain positions working with financial statement preparation, payroll, income taxes, budgeting and cost accounting. The Accounting Technician option provides students with a fundamental knowledge of accounting procedures for entry-level positions in bookkeeping. Graduates of the program find employment in specialized areas of accounting such as receivables, payables, billing, inventories and payroll.

Placement
Starting Wages: $22,000 – $32,000 per year*

*Source: Iowa Workforce Development

Employers

<table>
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<th>Location</th>
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<tr>
<td>Advanced Systems, Inc</td>
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<td>Harrison Truck Centers</td>
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<td>Hellman Associates, Inc.</td>
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<td>Isle of Capri</td>
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<td>Paul R. Nielsen Co. PC</td>
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<td>RSM McGladrey</td>
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<td>The Principal Financial Group</td>
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</table>

Program Contacts

Department Secretary
Cindi Clark
Black Hawk Hall 177
319-296-4021
Email me

Program Advisor A-M
Jenny Brehm
Black Hawk Hall 256
319-296-2329 ext.1747
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Program Advisor N-Z
Pat Geer
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319-296-2329 ext.1371
Email me

Dean
Bryan Renfro
Black Hawk Hall 180
319-296-4427
Email me
Accounting Admission Requirements

1. Be a high school graduate or equivalent.
   High School Diploma Verification Process.

2. Apply at Hawkeye.

3. Meet basic skill competencies in reading, writing, and math.

   Basic skill competencies assessment provides information about your academic skills in reading, writing, and math. This information will be used to determine your acceptance, course selection, and registration.

   For general admission to Hawkeye Community College, students must provide assessment scores in reading, math, and writing.

   College success courses may be required if your assessment score indicates additional help is needed.

   For course placement recommendations, based on your assessment score, review the Assessment Scores and Course Equivalences.

   Accepted Assessments
   ◦ ACT
   ◦ COMPASS
   ◦ ASSET
   ◦ SAT
   ◦ ACCUPLACER (effective Spring 2014)

   Previous College Experience
   Assessment may be waived based on previous college course work in reading, math, and writing. Send your official college transcripts to the Admissions office for evaluation.

Hawkeye's Equal Opportunity Statement
Accounting Courses

Award: Associate of Applied Science (AAS)
Program Start: Fall, Spring, Summer
Enrollment Status: Full-time or part-time

The AAS degree program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

<table>
<thead>
<tr>
<th>Semester 1</th>
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<tr>
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<td>ACC131 Principles of Accounting</td>
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<td>Math Elective</td>
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<tr>
<td>PSY102 Human and Work Relations -OR-</td>
<td>3</td>
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<tr>
<td>PSY111 Introduction to Psychology -OR-</td>
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<td>ACC265 Income Tax Accounting</td>
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<td>ACC311 Computer Accounting</td>
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<td>ACC803 Accounting Simulations</td>
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<td>Intermediate Accounting I</td>
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<td>BUS102</td>
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<td>BUS180</td>
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<td>BUS183</td>
<td>Business Law</td>
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<td>Principles of Macroeconomics</td>
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<td>SPC101</td>
<td>Fundamentals of Oral Communication</td>
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View Course Descriptions

Total Credits 17

### Semester 4

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Math Electives

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<td>MAT219</td>
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</table>

View Course Descriptions

Total Credits 14

See the course descriptions and more on the College Catalog page.
Accounting Technician Diploma Courses

Award: Diploma
Program Start: Fall, Spring, Summer
Enrollment Status: Full-time or part-time

The Accounting Technician - Diploma program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

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<td>Principles of Accounting I</td>
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<tr>
<td>MAT219</td>
<td>Calculus III</td>
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</tbody>
</table>

[View Course Descriptions]
**Executive Assistant**

The Executive Assistant program provides students with the knowledge and skills of an executive assistant. Responsibilities include coordinating, expediting, and facilitating functions of the office.

Students gain on-the-job training at local businesses and organizations ensuring students possess the skills necessary to successfully obtain a job as an executive assistant.

**Legal Office Assistant** is an Associate of Applied Science option of the Executive Assistant program.

**Transfer Information**

Office technology programs offer flexibility. Many courses are also required in other business programs, allowing a student to double major or transfer into a different program. For more information, contact a program advisor.
Executive Assistant Careers

Graduates are prepared for employment in various organizations such as legal offices, brokerage firms, insurance companies, and banking institutions.

Placement
Starting Wages: $30,000 - $42,000 per year*

Iowa Workforce Development forecasts more than 440 job openings each year for Office Managers and Administrative workers through 2020.

*Source: Iowa Workforce Development

Employers

<table>
<thead>
<tr>
<th>Company</th>
<th>Location</th>
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<tbody>
<tr>
<td>CUNA Mutual</td>
<td>Waverly, IA</td>
</tr>
<tr>
<td>Kirkwood Community College</td>
<td>Cedar Rapids, IA</td>
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<tr>
<td>Veridian Credit Union</td>
<td>Waterloo, IA</td>
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<tr>
<td>Waterloo - Cedar Falls Courier</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>Waterloo Credit Bureau</td>
<td>Waterloo, IA</td>
</tr>
</tbody>
</table>

Program Contacts

Department Secretary
Cindi Clark
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Program Advisor (A-L)
Sharon Buss
Black Hawk Hall 251
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Email me

Program Advisor (M-Z)
Beth Sindt
Black Hawk Hall 250
319-296-4424
Email me

Dean
Bryan Renfro
Black Hawk Hall 180
319-296-4427
Email me
Executive Assistant Admission Requirements

1. Be a high school graduate or equivalent.
   High School Diploma Verification Process.

2. **Apply at Hawkeye.**

3. Meet basic skill competencies in reading, writing, and math.
   
   Basic skill competencies assessment provides information about your academic skills in reading, writing, and math. This information will be used to determine your acceptance, course selection, and registration.

   For general admission to Hawkeye Community College, students must provide assessment scores in reading, math, and writing.

   College success courses may be required if your assessment score indicates additional help is needed.

   For course placement recommendations, based on your assessment score, review the Assessment Scores and Course Equivalences.

   **Accepted Assessments**
   - ACT
   - COMPASS
   - ASSET
   - SAT
   - ACCUPLACER (effective Spring 2014)

   **Previous College Experience**
   Assessment may be waived based on previous college course work in reading, math, and writing. Send your official college transcripts to the Admissions office for evaluation.

Hawkeye’s Equal Opportunity Statement
**Executive Assistant Courses**

**Award:** Associate of Applied Science (AAS)

**Program Start:** Fall, Spring, Summer

**Enrollment Status:** Full-time or part-time

The **AAS degree program** requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

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<td>ADM159 Proofreading and Editing</td>
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<td>BCA134 Word Processing</td>
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<td>BUS102 Introduction to Business</td>
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<td>ACC115 Introduction to Accounting -OR-</td>
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<td>ADM203</td>
<td>Legal Office Concepts and Procedures -OR-</td>
</tr>
<tr>
<td>ADM208</td>
<td>Legal Terminology -OR-</td>
</tr>
<tr>
<td>ADM200</td>
<td>Legal Document Processing</td>
</tr>
<tr>
<td>ADM222</td>
<td>Career Capstone</td>
</tr>
<tr>
<td>BUS183</td>
<td>Business Law</td>
</tr>
<tr>
<td>BUS903</td>
<td>Business Field Experience</td>
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<tr>
<td><strong>Total Credits 16</strong></td>
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</table>

<table>
<thead>
<tr>
<th>Math Electives</th>
<th></th>
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<tbody>
<tr>
<td>MAT110</td>
<td>Math for Liberal Arts</td>
</tr>
<tr>
<td>MAT122</td>
<td>College Algebra</td>
</tr>
<tr>
<td>MAT128</td>
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</tr>
<tr>
<td>MAT134</td>
<td>Trigonometry and Analytic Geometry</td>
</tr>
<tr>
<td>MAT156</td>
<td>Statistics</td>
</tr>
<tr>
<td>MAT210</td>
<td>Calculus I</td>
</tr>
<tr>
<td>MAT216</td>
<td>Calculus II</td>
</tr>
<tr>
<td>MAT219</td>
<td>Calculus III</td>
</tr>
<tr>
<td><strong>Total Credits 16</strong></td>
<td></td>
</tr>
</tbody>
</table>
# Administrative Assistant Diploma Courses

**Award:** Diploma  
**Program Start:** Fall, Spring, Summer  
**Enrollment Status:** Full-time or part-time

The Administrative Assistant - Diploma program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

## Program Options

<table>
<thead>
<tr>
<th>Program Options</th>
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<tbody>
<tr>
<td><strong>AAS degree</strong></td>
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<tr>
<td><strong>Administrative Assistant - Diploma</strong></td>
</tr>
<tr>
<td><strong>Office Assistant - Certificate</strong></td>
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### Semester 1

<table>
<thead>
<tr>
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<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ADM105</td>
<td>Introduction to Keyboarding</td>
<td>1</td>
</tr>
<tr>
<td>ADM131</td>
<td>Office Calculators</td>
<td>1</td>
</tr>
<tr>
<td>ADM159</td>
<td>Proofreading and Editing</td>
<td>3</td>
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<tr>
<td>BCA134</td>
<td>Word Processing</td>
<td>3</td>
</tr>
<tr>
<td>BCA205</td>
<td>Database/Spreadsheets</td>
<td>3</td>
</tr>
<tr>
<td>MAT772</td>
<td>Applied Math -OR- Math Elective</td>
<td>3</td>
</tr>
<tr>
<td>PSY102</td>
<td>Human and Work Relations -OR-</td>
<td>3</td>
</tr>
<tr>
<td>PSY111</td>
<td>Introduction to Psychology -OR-</td>
<td>3</td>
</tr>
<tr>
<td>SOC110</td>
<td>Introduction to Sociology</td>
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View Course Descriptions  
Total Credits 17

### Semester 2

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>ACC115</td>
<td>Introduction to Accounting -OR-</td>
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<tr>
<td>ACC131</td>
<td>Principles of Accounting I</td>
<td>4</td>
</tr>
<tr>
<td>ADM108</td>
<td>Keyboarding Skill Development</td>
<td>1</td>
</tr>
<tr>
<td>ADM162</td>
<td>Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>ADM180</td>
<td>Administrative Management</td>
<td>3</td>
</tr>
<tr>
<td>ADM222</td>
<td>Career Capstone</td>
<td>3</td>
</tr>
<tr>
<td>BCA132</td>
<td>Electronic Communications -OR-</td>
<td>3</td>
</tr>
<tr>
<td>BCA213</td>
<td>Intermediate Computer Business Applications</td>
<td>3</td>
</tr>
</tbody>
</table>

View Course Descriptions  
Total Credits 17

## Program Contacts

**Department Secretary**  
Cindi Clark  
Black Hawk Hall 177  
319-296-4021  
Email me

**Program Advisor (A-L)**  
Sharon Buss  
Black Hawk Hall 251  
319-296-2329 ext.1742  
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**Program Advisor (M-Z)**  
Beth Sindt  
Black Hawk Hall 250  
319-296-4424  
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**Dean**  
Bryan Renfro  
Black Hawk Hall 180  
319-296-4427  
Email me
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ADM148</td>
<td>Transcription</td>
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<td>BUS903</td>
<td>Business Field Experience</td>
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</tr>
<tr>
<td>ENG105</td>
<td>Composition I -OR-</td>
<td>3</td>
</tr>
<tr>
<td>SPC101</td>
<td>Fundamentals of Oral Communication</td>
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</table>

**Total Credits 8**

**Math Electives**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MAT110</td>
<td>Math for Liberal Arts</td>
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</tr>
<tr>
<td>MAT122</td>
<td>College Algebra</td>
<td>5</td>
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<td>MAT128</td>
<td>Precalculus</td>
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</tr>
<tr>
<td>MAT134</td>
<td>Trigonometry and Analytic Geometry</td>
<td>3</td>
</tr>
<tr>
<td>MAT156</td>
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</tr>
<tr>
<td>MAT219</td>
<td>Calculus III</td>
<td>4</td>
</tr>
</tbody>
</table>

**View Course Descriptions**

**College Catalog | Next Page >**
Office Assistant Certificate Courses

**Award:** Certificate  
**Program Start:** Fall, Spring, Summer  
**Enrollment Status:** Full-time or part-time

The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. [View your Program Evaluation](#) to see your specific program requirements and to search and register for classes.

### Semester 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADM105</td>
<td>Introduction to Keyboarding</td>
<td>1</td>
</tr>
<tr>
<td>ADM131</td>
<td>Office Calculators</td>
<td>1</td>
</tr>
<tr>
<td>ADM159</td>
<td>Proofreading and Editing</td>
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<td>BCA134</td>
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<tr>
<td>MAT772</td>
<td>Applied Math -OR- Math Elective</td>
<td>3</td>
</tr>
<tr>
<td>PSY102</td>
<td>Human and Work Relations -OR-</td>
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</tr>
<tr>
<td>PSY111</td>
<td>Introduction to Psychology -OR-</td>
<td>3</td>
</tr>
<tr>
<td>SOC110</td>
<td>Introduction to Sociology</td>
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</table>

Total Credits 14

### Semester 2

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
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<tr>
<td>ACC111</td>
<td>Introduction to Accounting -OR-</td>
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</tr>
<tr>
<td>ACC115</td>
<td>Introduction to Accounting -OR-</td>
<td>4</td>
</tr>
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<tr>
<td>ADM162</td>
<td>Office Procedures</td>
<td>3</td>
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<tr>
<td>BCA132</td>
<td>Electronic Communications</td>
<td>3</td>
</tr>
<tr>
<td>BCA205</td>
<td>Database/Spreadsheets</td>
<td>3</td>
</tr>
<tr>
<td>ENG105</td>
<td>Composition I -OR-</td>
<td>3</td>
</tr>
<tr>
<td>SPC101</td>
<td>Fundamentals of Oral Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits 15

Program Contacts

Department Secretary  
Cindi Clark  
Black Hawk Hall 177  
319-296-4021  
Email me

Program Advisor (A-L)  
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<td>MAT110</td>
<td>Math for Liberal Arts</td>
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<td>MAT122</td>
<td>College Algebra</td>
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<tr>
<td>MAT134</td>
<td>Trigonometry and Analytic Geometry</td>
<td>3</td>
</tr>
<tr>
<td>MAT156</td>
<td>Statistics</td>
<td>3</td>
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<td>MAT210</td>
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</tr>
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<td>MAT216</td>
<td>Calculus II</td>
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</tr>
<tr>
<td>MAT219</td>
<td>Calculus III</td>
<td>4</td>
</tr>
</tbody>
</table>

View Course Descriptions
Golf Course and Country Club Management

The Golf Course and Country Club Management program provides students with the knowledge and skills to enter into careers in the golf course and country club industry as course managers, club managers, assistant course managers, and assistant club managers at public and private golf courses and country clubs. Students will learn inside operations including event planning, personnel and staffing, finance and budgeting, marketing, hospitality management, and food and bar operations. They will also learn outside operations including turfgrass, grounds maintenance, pest management, and equipment operation and repair.

Experience and Training
The Golf Course and Country Club Management program provides four-week and 12-week Golf Course Internships. These internships allow students to gain real-work experience on-site at golf courses and country clubs. This ensures students develop the skills they need to succeed on the job.

Transfer Information
Many state and private colleges and universities accept up to 65 credits. For more information, contact a program advisor.
Golf Course and Country Club Management Careers

Graduates may find employment in public and private golf courses and country clubs working as:

- assistant superintendents
- superintendents
- assistant managers
- managers
- event planners

They may also find jobs as golf industry representatives.

Starting Wages: $25,000 - $38,000 per year*

*Source: Golf Course and Country Club Management Advisory Committee Members

Potential Employers
This program's advisory committee members and other golf course and country clubs may hire graduates.

<table>
<thead>
<tr>
<th>Golf Course and Club</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ballard Golf and County Club</td>
<td>Huxley, IA</td>
</tr>
<tr>
<td>Beaver Hills Country Club</td>
<td>Cedar Falls, IA</td>
</tr>
<tr>
<td>Cedar Falls Parks and Recreation</td>
<td>Cedar Falls, IA</td>
</tr>
<tr>
<td>La Porte City Golf Club</td>
<td>La Porte City, IA</td>
</tr>
<tr>
<td>River Bend Golf Course</td>
<td>Story City, IA</td>
</tr>
<tr>
<td>Waterloo Leisure Services</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>Waverly Golf Course</td>
<td>Waverly, IA</td>
</tr>
</tbody>
</table>

Program Contacts

Department Secretary
Cindi Clark
Black Hawk Hall 177
319-296-4021
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Program Advisor
Dave Westley
Black Hawk Hall 187
319-296-2329 ext.1210
Email me

Dean
Bryan Renfro
Black Hawk Hall 180
319-296-4427
Email me
Golf Course and Country Club Management Admission Requirements

1. Be a high school graduate or equivalent.  
   High School Diploma Verification Process.

2. Apply at Hawkeye.

3. Meet basic skill competencies in reading, writing, and math.

   Basic skill competencies assessment provides information about your academic skills in reading, writing, and math. This information will be used to determine your acceptance, course selection, and registration.

   For general admission to Hawkeye Community College, students must provide assessment scores in reading, math, and writing.

   College success courses may be required if your assessment score indicates additional help is needed.

   For course placement recommendations, based on your assessment score, review the Assessment Scores and Course Equivalences.

   Accepted Assessments
   ◦ ACT
   ◦ COMPASS
   ◦ ASSET
   ◦ SAT
   ◦ ACCUPLACER (effective Spring 2014)

   Previous College Experience
   Assessment may be waived based on previous college course work in reading, math, and writing. Send your official college transcripts to the Admissions office for evaluation.

Hawkeye's Equal Opportunity Statement
# Golf Course and Country Club Management Courses

**Award:** Associate of Applied Science (AAS)  
**Program Start:** Fall, Spring, Summer  
**Enrollment Status:** Full-time or part-time.

The Golf Course and Country Club Management program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

## Semester 1

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>AGH112</td>
<td>Introduction to Turfgrass Management</td>
<td>3</td>
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<tr>
<td>ENG105</td>
<td>Composition I -OR-</td>
<td>3</td>
</tr>
<tr>
<td>COM781</td>
<td>Written Communication in the Workplace</td>
<td>3</td>
</tr>
<tr>
<td>HCM608</td>
<td>Introduction to Hospitality</td>
<td>3</td>
</tr>
<tr>
<td>MGT101</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT222</td>
<td>Golf Club Operations</td>
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</tbody>
</table>

__View Course Descriptions__  
**Total Credits 15**

## Semester 2

<table>
<thead>
<tr>
<th>Course</th>
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<th>Credits</th>
</tr>
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<tr>
<td>AGH425</td>
<td>Grounds Maintenance</td>
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<tr>
<td>BUS905</td>
<td>Golf Course Internship</td>
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<tr>
<td>HCM100</td>
<td>Sanitation and Safety</td>
<td>2</td>
</tr>
<tr>
<td>HCM242</td>
<td>Event Planning and Customer Service</td>
<td>2</td>
</tr>
<tr>
<td>HCM602</td>
<td>Introduction to Food and Bar Operations</td>
<td>3</td>
</tr>
<tr>
<td>SPC101</td>
<td>Fundamentals of Oral Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

__View Course Descriptions__  
**Total Credits 14**

Courses will meet for the first 12 weeks and the Golf Course Internship will meet for the last 4 weeks of the semester.

## Semester 3 – Summer

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tr>
<td>BUS905</td>
<td>Golf Course Internship</td>
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__View Course Descriptions__  
**Total Credits 3**
The Golf Course Internship will meet for 12 weeks.

<table>
<thead>
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<th>Semester 4</th>
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<tbody>
<tr>
<td>AGH161 Irrigation Systems 3</td>
</tr>
<tr>
<td>MAT156 Statistics -OR- 3</td>
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<tr>
<td>MAT110 Math for Liberal Arts 3</td>
</tr>
<tr>
<td>MKT110 Principles of Marketing -OR- 3</td>
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<tr>
<td>MKT198 Sports Marketing 3</td>
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<thead>
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<th>Semester 5</th>
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<td>ACC131 Principles of Accounting I -OR- 4</td>
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<tr>
<td>ACC115 Introduction to Accounting 4</td>
</tr>
<tr>
<td>MGT170 Human Resource Management 3</td>
</tr>
<tr>
<td>PSY111 Introduction to Psychology -OR- 3</td>
</tr>
<tr>
<td>SOC110 Introduction to Sociology -OR- 3</td>
</tr>
<tr>
<td>PSY102 Human and Work Relations 3</td>
</tr>
<tr>
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<table>
<thead>
<tr>
<th>Electives – List 1</th>
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<tbody>
<tr>
<td>AGH140 Equipment Operations -AND- 2</td>
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<tr>
<td>AGH143 Equipment Repair 3</td>
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<tr>
<td>BUS183 Business Law 3</td>
</tr>
<tr>
<td>MKT142 Consumer Behavior 3</td>
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<tr>
<td>MMS117 Social Media for Business 3</td>
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<table>
<thead>
<tr>
<th>Electives – List 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGH211 Advanced Turfgrass Management -AND- 3</td>
</tr>
<tr>
<td>AGA376 Integrated Pest Management 3</td>
</tr>
<tr>
<td>MGT110 Small Business Management 3</td>
</tr>
<tr>
<td>MKT140 Principles of Selling 3</td>
</tr>
<tr>
<td>MKT152 Advertising and Visual Merchandising 3</td>
</tr>
</tbody>
</table>

View Course Descriptions

College Catalog | Next Page >
Human Resource Management

The Human Resource Management program prepares graduates to start in entry-level positions in the growing field of human resource management to meet the demands of business and service organizations. Students learn the essentials of human resources by studying management, interviewing, job placement, business and labor laws, needs assessment, strategic planning, compensation and benefits, and training techniques.

Transfer Information
Transfer among Human Resource Management and the Business Administration transfer program is common. Graduates may transfer with junior status to Wartburg College, Mount Mercy University, and Upper Iowa University. For more information, contact a program advisor.
Human Resource Management Careers

Graduates of the Human Resource Management program work as:

- assistants
- generalists
- benefit coordinators
- recruiters
- job analysts
- training and development specialists
- compensation and benefits administrators
- employment welfare coordinators
- managers
- assistant managers
- supervisors

Placement
Starting Wages - $28,000 - $37,000 per year*

The demand for trained individuals in human resources will increase as employment, compensation, and benefit laws continue to change and become increasingly more complex.

*Source: Iowa Workforce Development
Human Resource Management Admission Requirements

1. Be a high school graduate or equivalent.  
   High School Diploma Verification Process.

2. Apply at Hawkeye.

3. Meet basic skill competencies in reading, writing, and math.
   
   Basic skill competencies assessment provides information about your academic skills in reading, writing, and math. This information will be used to determine your acceptance, course selection, and registration.

   For general admission to Hawkeye Community College, students must provide assessment scores in reading, math, and writing.

   College success courses may be required if your assessment score indicates additional help is needed.

   For course placement recommendations, based on your assessment score, review the Assessment Scores and Course Equivalences.

   **Accepted Assessments**
   
   ◦ ACT
   ◦ COMPASS
   ◦ ASSET
   ◦ SAT
   ◦ ACCUPLACER (effective Spring 2014)

   **Previous College Experience**
   
   Assessment may be waived based on previous college course work in reading, math, and writing. Send your official college transcripts to the Admissions office for evaluation.

Hawkeye's Equal Opportunity Statement
Human Resource Management Courses

**Award:** Associate of Applied Science (AAS)

**Program Start:** Fall, Spring, Summer

The Human Resource Management program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

*If you are a current student* your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS102</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>ENG105</td>
<td>Composition I</td>
<td>3</td>
</tr>
<tr>
<td>MAT110</td>
<td>Math for Liberal Arts -OR- Math Elective</td>
<td>3</td>
</tr>
<tr>
<td>MGT101</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>PSY111</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

**View Course Descriptions**

**Total Credits 15**

### Semester 2

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS180</td>
<td>Business Ethics</td>
<td>3</td>
</tr>
<tr>
<td>CSC110</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>ECN120</td>
<td>Principles of Macroeconomics -OR-</td>
<td>3</td>
</tr>
<tr>
<td>ECN130</td>
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<td>MGT170</td>
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<tr>
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**View Course Descriptions**

**Total Credits 18**

### Semester 3

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**View Course Descriptions**

**Total Credits 16**
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<td>BUS903</td>
<td>Business Field Experience</td>
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<tr>
<td>MGT142</td>
<td>Problems and Issues in Supervision and Management</td>
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<tr>
<td>MGT178</td>
<td>Employment Law</td>
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**Total Credits 15**

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<td>MAT128</td>
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<tr>
<td>MAT134</td>
<td>Trigonometry and Analytic Geometry</td>
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<tr>
<td>MAT156</td>
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<td>MAT219</td>
<td>Calculus III</td>
<td>4</td>
</tr>
</tbody>
</table>

**Math Electives**

View Course Descriptions

College Catalog | Next Page >
Legal Office Assistant

The Legal Office Assistant program is designed to prepare students to be able to support the legal divisions of businesses and law firms. Students learn most of the skills and knowledge required of the Executive Assistant program, as well as preparing correspondence and legal papers under the supervision of an attorney or paralegal.

Students learn legal assistant skills, legal office procedures, legal transcription, legal terminology, and legal document production.

Legal Office Assistant is an Associate of Applied Science option of the Executive Assistant program.

Experience and Training

Students gain on-the-job experience at local businesses and organizations ensuring students possess the skills necessary to successfully obtain a job as a legal office assistant.

Transfer Information

Many of the business courses are designed to allow students easy transfer from one business program to another. For more information, visit with a program advisor.
Legal Office Assistant Careers

Graduates find employment in law firms, legal divisions of large businesses, and federal and state government offices.

Placement
Starting Wages: $26,000- $36,500 per year
*Source: Iowa Workforce Development

Employers

<table>
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<th>Employer</th>
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<td>Redfern, Mason, Dieter, Larsen and Moore</td>
<td>Cedar Falls, IA</td>
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<tr>
<td>Swisher and Cohrt</td>
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</table>

Program Contacts

Department Secretary
Cindi Clark
Black Hawk Hall 177
319-296-4021
Email me

Program Advisor (A-L)
Sharon Buss
Black Hawk Hall 251
319-296-2329 ext.1742
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Program Advisor (M-Z)
Beth Sindt
Black Hawk Hall 250
319-296-4424
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Dean
Bryan Renfro
Black Hawk Hall 180
319-296-4427
Email me
Legal Office Assistant Admission Requirements

1. Be a high school graduate or equivalent.
   High School Diploma Verification Process.

2. Apply at Hawkeye.

3. Meet basic skill competencies in reading, writing, and math.

   Basic skill competencies assessment provides information about your academic skills in reading, writing, and math. This information will be used to determine your acceptance, course selection, and registration.

   For general admission to Hawkeye Community College, students must provide assessment scores in reading, math, and writing.

   College success courses may be required if your assessment score indicates additional help is needed.

   For course placement recommendations, based on your assessment score, review the Assessment Scores and Course Equivalences.

   Accepted Assessments
   ◦ ACT
   ◦ COMPASS
   ◦ ASSET
   ◦ SAT
   ◦ ACCUPLACER (effective Spring 2014)

   Previous College Experience
   Assessment may be waived based on previous college course work in reading, math, and writing. Send your official college transcripts to the Admissions office for evaluation.

Hawkeye's Equal Opportunity Statement
Legal Office Assistant Courses

**Award:** Associate of Applied Science (AAS)  
**Program Start:** Fall, Spring, Summer  
**Enrollment Status:** Full-time or part-time.

The Legal Office Assistant program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

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<td>ADM159  Proofreading and Editing</td>
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<td>BCA134  Word Processing</td>
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<td>CRJ100  Introduction to Criminal Justice</td>
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<td>MAT772  Applied Math -OR-</td>
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<td>PSY102  Human and Work Relations -OR-</td>
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<tr>
<td>SOC110  Introduction to Sociology</td>
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View Course Descriptions  
Total Credits 16

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<td>ADM108  Keyboarding Skill Development</td>
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<td>ADM148  Transcription</td>
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<td>ADM208  Legal Terminology</td>
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<td>BCA205  Database/Spreadsheets</td>
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<td>ENG105  Composition I</td>
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View Course Descriptions  
Total Credits 16

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<td>Intermediate Computer Business Applications</td>
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**Total Credits 16**

### Semester 4

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<td>Legal Office Concepts and Procedures</td>
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<td>ADM222</td>
<td>Career Capstone</td>
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<tr>
<td>BUS183</td>
<td>Business Law</td>
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**Total Credits 15**

### Math Electives

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<td>MAT128</td>
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<td>MAT134</td>
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<td>MAT156</td>
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<tr>
<td>MAT219</td>
<td>Calculus III</td>
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</table>

**View Course Descriptions**
Marketing Management

The Marketing Management program prepares students with the competencies to enter mid-management marketing. Students learn the essential skills for beginning a successful career in today's fast paced business environment and study marketing activities, management functions, decision-making skills, sales, merchandising, human resources, and promotions management. Courses feature an emphasis on the application of computer technology and communication.

Transfer Information

Transfer among Marketing Management and the Business Administration transfer program is common. Graduates may transfer with junior status to Wartburg College, Upper Iowa University, or Mount Mercy University. For more information, visit with a program advisor.
Marketing Management Careers

Graduates work as assistant managers or managers in marketing, sales, promotion, distribution services, and procurement positions in wholesale, manufacturing, retail, service, and financial businesses.

Graduates may work in small companies utilizing a broad range of skills doing a wide variety of tasks and in large companies specialized in more specific positions.

Placement
Starting Wages: $24,000- $38,000 per year*

Iowa Workforce Development forecasts more than 755 job openings each year for entry-level managers through 2020.

Graduates may earn a salary, be commission-based, or be a combination of salary and commission.

*Source: Iowa Workforce Development

Employers

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<td>Norwest Card Services</td>
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<td>Parts Company of America</td>
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<td>VGM Group</td>
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Program Contacts

Department Secretary
Cindi Clark
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319-296-4021
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Program Advisor
Mark Ryan
Black Hawk Hall 262
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Dean
Bryan Renfro
Black Hawk Hall 180
319-296-4427
Email me
Marketing Management Admission Requirements

1. Be a high school graduate or equivalent.
   
   High School Diploma Verification Process.

2. Apply at Hawkeye.

3. Meet basic skill competencies in reading, writing, and math.

   Basic skill competencies assessment provides information about your academic skills in reading, writing, and math. This information will be used to determine your acceptance, course selection, and registration.

   For general admission to Hawkeye Community College, students must provide assessment scores in reading, math, and writing.

   College success courses may be required if your assessment score indicates additional help is needed.

   For course placement recommendations, based on your assessment score, review the Assessment Scores and Course Equivalences.

   Accepted Assessments
   - ACT
   - COMPASS
   - ASSET
   - SAT
   - ACCUPLACER (effective Spring 2014)

Previous College Experience

Assessment may be waived based on previous college course work in reading, math, and writing. Send your official college transcripts to the Admissions office for evaluation.

Hawkeye's Equal Opportunity Statement
# Marketing Management Courses

**Award:** Associate of Applied Science (AAS)  
**Program Start:** Fall, Spring, Summer  
**Enrollment Status:** Full-time or part-time

The Marketing Management program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

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<td><strong>COM781</strong></td>
<td>Written Communication in the Workplace</td>
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<td>Principles of Marketing</td>
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<tr>
<td><strong>PSY102</strong></td>
<td>Human and Work Relations -OR-</td>
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<tr>
<td><strong>PSY111</strong></td>
<td>Introduction to Psychology -OR-</td>
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**Math Elective** 3  
**Total Credits 15**

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<td><strong>MKT160</strong></td>
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**View Course Descriptions**  
**Total Credits 18**

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**Total Credits 16**

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<td>MKT152</td>
<td>Advertising and Visual Merchandising</td>
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**Total Credits 15**

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<td>Principles of Microeconomics</td>
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**Business Electives**

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<td>Word Processing</td>
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<tr>
<td>BUS180</td>
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**Marketing Management Electives**

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<tr>
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</tr>
<tr>
<td>BUS220</td>
<td>Introduction to International Business</td>
<td>3</td>
</tr>
<tr>
<td>FIN121</td>
<td>Personal Finance</td>
<td>3</td>
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<td>3</td>
</tr>
<tr>
<td>MAT122</td>
<td>College Algebra</td>
<td>5</td>
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<tr>
<td>MAT219</td>
<td>Calculus III</td>
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</tbody>
</table>

View Course Descriptions
Medical Administrative Assistant

The Medical Administrative Assistant program is designed to prepare students with entry-level competencies to begin a career in the medical administrative field. Students gain the skills and knowledge in secretarial functions of coordinating, expediting, and facilitating the daily operations of a medical office.

Experience and Training
Students gain on-the-job training at local businesses and organizations through Business Field Experience, ensuring students possess the skills necessary to successfully obtain a job as a Medical Administrative Assistant.

Medical Secretary

The Medical Secretary program prepares students with the knowledge and skills for entry-level secretarial positions in the medical profession. Students study accounting, patient billing, insurance, coding, and medical transcription.

Transfer Information

Programs in the office technology area are designed to allow students to transfer from one office technology program to another. For more information, contact a program advisor.
Medical Administrative Assistant Careers

Graduates of this program are prepared for employment in various health-related organizations such as physicians' and dentists' offices, hospitals, insurance companies, and community health facilities. They work as administrative assistants, office managers, medical secretaries, insurance specialists, and clinic administrators.

Placement
Starting Wages: $23,000 - $29,000 per year*

*Source: Iowa Workforce Development

Employers

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<th>Location</th>
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<td>E &amp; C Insurance</td>
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Medical Administrative Assistant Admission Requirements

1. Be a high school graduate or equivalent.  
   High School Diploma Verification Process.

2. Apply at Hawkeye.

3. Meet basic skill competencies in reading, writing, and math.

   Basic skill competencies assessment provides information about your academic skills in reading, writing, and math. This information will be used to determine your acceptance, course selection, and registration.

   For general admission to Hawkeye Community College, students must provide assessment scores in reading, math, and writing.

   College success courses may be required if your assessment score indicates additional help is needed.

   For course placement recommendations, based on your assessment score, review the Assessment Scores and Course Equivalences.

   **Accepted Assessments**
   - ACT
   - COMPASS
   - ASSET
   - SAT
   - ACCUPLACER (effective Spring 2014)

   **Previous College Experience**
   Assessment may be waived based on previous college course work in reading, math, and writing. Send your official college transcripts to the Admissions office for evaluation.

Hawkeye's Equal Opportunity Statement
Medical Administrative Assistant Courses

**Award:** Associate of Applied Science (AAS)

**Program Start:** Fall, Spring, Summer

**Enrollment Status:** Full-time or part-time

The AAS degree program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

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**Total Credits 17**

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<td>CSC110</td>
<td>Introduction to Computers</td>
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<td>HIT250</td>
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<tr>
<td>HSC124</td>
<td>Advanced Medical Terminology</td>
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</tr>
</tbody>
</table>

**Total Credits 17**

### Program Options

- AAS degree
- Medical Secretary - Diploma

### Program Contacts

**Department Secretary**
Cindi Clark
Black Hawk Hall 177
319-296-4021
Email me

**Program Advisor**
Dee Ulrich
Black Hawk Hall 257
319-296-2329 ext.1756
Email me

**Dean**
Bryan Renfro
Black Hawk Hall 180
319-296-4427
Email me

[View Course Descriptions]

[Program Contacts]
### Semester 3

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<tr>
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**Total Credits 16**

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<td>ADM180</td>
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<td>ADM222</td>
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**Total Credits 14**

### Math Electives

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<td>College Algebra</td>
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**Total Credits 14**
Medical Secretary Diploma Courses

Award: Diploma
Program Start: Fall, Spring, Summer
Enrollment Status: Full-time or part-time

The Medical Secretary - Diploma program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

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<td>MAT772</td>
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<td>ADM162</td>
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<tr>
<td>MAT219</td>
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</tr>
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View Course Descriptions
Medical Billing and Coding Associate

The Medical Billing and Coding Associate program will provide students with the skills needed to enter one of the fastest-growing fields in healthcare. Students will gain hands-on, practical experience with medical insurance claim forms for various types of medical insurance and will work with ICD-10-CM, ICD-10-PCS, CPT-4, and HCPCS coding. They will also learn legal, ethical, regulatory, and HIPAA compliance concepts and requirements.

Medical billing and coding professionals keep and review records, calculate patient charges for services, prepare statements, and submit claims to insurance carriers accurately in an efficient and timely manner.

Certification

Students who successfully complete the program will be eligible to take one of the following national certification exams.

- Billing and Coding Specialist Certification (CBCS) from the National Healthcareer Association (NHA)
- Certified Coding Associate (CCA) from the American Health and Information Management Association (AHIMA)
- Certified Professional Coder (CPC) from the American Academy of Professional Coders (AAPC)

Transfer Information

Programs in the office technology area are designed to allow students to transfer from one office technology program to another. For more information, contact a program advisor.
Medical Billing and Coding Associate Careers

Graduates may find employment in hospitals and physicians' offices working as:

- billing coordinator
- billing specialist
- coding specialist
- collections specialist
- patient account representative
- reimbursement specialist
- revenue analyst

Starting Wages: $24,500 - $31,000 per year*

*Source: Iowa Workforce Development
Medical Billing and Coding Associate Admission Requirements

1. Be a high school graduate or equivalent.  
   High School Diploma Verification Process.

2. Apply at Hawkeye.

3. Meet basic skill competencies in reading, writing, and math.
   
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   Accepted Assessments
     ◦ ACT
     ◦ COMPASS
     ◦ ASSET
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     ◦ ACCUPLACER (effective Spring 2014)

   Previous College Experience
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Hawkeye’s Equal Opportunity Statement
### Medical Billing and Coding Associate Courses

**Award:** Associate of Applied Science (AAS)  
**Program Start:** Fall, Spring, Summer  
**Enrollment Status:** Full-time or part-time

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**Total Credits 16**

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**Math Electives**

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**Total Credits 16**
# Medical Insurance Coding Specialist Diploma Courses

**Award:** Diploma  
**Program Start:** Fall, Spring, Summer  
**Enrollment Status:** Full-time or part-time

The Medical Insurance Coding Specialist - Diploma program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

*If you are a current student* your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

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</tr>
</thead>
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<td>Statistics</td>
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<tr>
<td>MAT210</td>
<td>Calculus I</td>
<td>4</td>
</tr>
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<td>MAT216</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MAT219</td>
<td>Calculus III</td>
<td>4</td>
</tr>
</tbody>
</table>

*View Course Descriptions*
Early Childhood Education

The Early Childhood Education program prepares students for a rewarding career nurturing the growth and development of children. Students are provided basic knowledge about the childcare and education field, child development from birth through adolescence, and appropriate practices in working with children.

Students gain hands-on experience by participating in opportunities in a variety of local early childhood programs including head start centers, preschool programs, and child care centers such as the Hawkeye Child Development Center.

Students must pass the Department of Human Services criminal history record check and a national FBI fingerprint check before being placed in field experience courses.

Personal Characteristics

Early Childhood professionals must exhibit the following skills, knowledge, and abilities:

- ability to communicate effectively, both orally and in writing
- ability to "think on your feet" and make quick decisions
- ability to provide positive guidance to young children
- ability to establish professional relationships with parents, co-workers, and community members
- demonstrate responsibility and dependability
- plan and implement age appropriate activities for young children
- provide nurturing care for young children
- supervise young children in play and daily routines
Evening Program

Complete the Early Childhood Education program in the evening! Eight week hybrid courses (partially face-to-face, partially online) are offered 6:00-7:15pm and 7:30-8:45pm Tuesdays and Thursdays. This evening sequence of study coincide with the four-year evening program at Upper Iowa University to ease your transition in completing your degree.

The Hawkeye Child Development Center will be open on Tuesday and Thursday evenings.

Transfer Information

The Early Childhood Education Associate of Applied Science degree has an articulation agreement with the Prekindergarten-3 Grade Bachelor of Arts degree at Upper Iowa University.
Early Childhood Education Careers

Graduates are working in a variety of child care settings including:

- Head Start centers
- preschools
- public or private child care centers
- public schools as paraeducators
- in-home child care providers
- nannies

Placement
Starting Wages: $17,500 - $24,000 per year*

Iowa has one of the nation's highest rates of working mothers, so the demand for skilled individuals to care for and educate children is very high.

*Source: Iowa Workforce Development

Employers

<table>
<thead>
<tr>
<th>Employer</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community United Child Care Centers</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td></td>
<td>Cedar Falls, IA</td>
</tr>
<tr>
<td>Hawkeye Child Development Center</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>Tri-County Child &amp; Family Development Council, Inc.</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>Trinity Child Development Center</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>Waterloo Community Schools</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>Waverly Child Care and Preschool</td>
<td>Waverly, IA</td>
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</tbody>
</table>

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Early Childhood Education Admission Requirements

Basic Skill Competencies Requirements

Option 1
Score at least the following scores on any combination of the below assessment options:

<table>
<thead>
<tr>
<th>ACT sub scores</th>
<th>COMPASS scores</th>
<th>ASSET scores</th>
<th>ACCUPLACER scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>14 - Math</td>
<td>24 - Pre-Algebra</td>
<td>38 - Numerical</td>
<td>40 - Arithmetic</td>
</tr>
<tr>
<td>16 - Reading</td>
<td>69 - Reading</td>
<td>34 - Reading</td>
<td>62 - Reading</td>
</tr>
<tr>
<td>16 - English</td>
<td>41 - Writing</td>
<td>35 - Writing</td>
<td>77 - Sentence Skills</td>
</tr>
</tbody>
</table>

Applicants can take the [ACT assessment](#) or the [COMPASS assessment](#) at Hawkeye. Pre-registration is required.

Option 2
Complete all of the following college success courses with a "C" grade or higher at Hawkeye Community College or comparable courses at another accredited college:

- ENG060 College Preparatory Writing I
- RDG039 College Preparatory Reading II
- MAT045 Fundamentals of Math

Option 3
Any combination of the above fulfilling the basic skills requirements of algebra, reading, and writing.

Admissions Process

1. [Apply for admission](#).

2. Completed applicant files (we have your application, transcripts, and test scores) will be processed as follows:
   a. Applicants meeting the program's admission requirements will be sent an admissions inactivation letter.
   b. Applicants meeting the program's admission requirements will be accepted.

3. We accept approximately 30 students and 30 alternates each fall and spring semester. Applicants will be accepted based on the date their completed applicant file. If many students share the same date for completing their applicant files, the application date will be used to prioritize their acceptance.

4. If necessary, alternates will be contacted to fill unconfirmed positions in the program. Alternates will be given priority for the next term.

5. Students must pass the Department of Human Services Criminal History Record Check and a National FBI Fingerprint check prior to being placed in field experience courses.

Hawkeye's Equal Opportunity Statement
# Early Childhood Education Courses

**Award:** Associate of Applied Science (AAS)  
**Program Start:** Fall, Spring  
**Enrollment Status:** Full-time or part-time

The **AAS degree program** requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

**If you are a current student** your program requirements may be different than those listed for the current catalog year. View your **Program Evaluation** to see your specific program requirements and to search and register for classes.

## Required Background Screenings
Students must pass a DHS Criminal History Record Check and an FBI Fingerprint Check before being placed in Field Experience courses.

<table>
<thead>
<tr>
<th>Semester 1</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE103</td>
<td>Introduction to Early Childhood Education</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECE158</td>
<td>Early Childhood Curriculum I</td>
<td>3</td>
<td></td>
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</tr>
<tr>
<td>ECE170</td>
<td>Child Growth and Development</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECE221</td>
<td>Infant/Toddler Care and Education</td>
<td>3</td>
<td></td>
<td></td>
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<tr>
<td>ENG105</td>
<td>Composition I -OR-</td>
<td>3</td>
<td></td>
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<tr>
<td>COM781</td>
<td>Written Communication in the Workplace</td>
<td>3</td>
<td></td>
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</tr>
<tr>
<td>MAT110</td>
<td>Math for Liberal Arts -OR-</td>
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<td></td>
<td></td>
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<tr>
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<td>Child Health, Safety and Nutrition</td>
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<td>ECE159</td>
<td>Early Childhood Curriculum II</td>
<td>3</td>
<td></td>
<td></td>
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<tr>
<td>ECE243</td>
<td>Early Childhood Guidance</td>
<td>3</td>
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<tr>
<td>ECE274</td>
<td>Field Experience I</td>
<td>2</td>
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<tr>
<td>ECE944</td>
<td>Field Experience Seminar I</td>
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<td></td>
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<tr>
<td>SOC110</td>
<td>Introduction to Sociology</td>
<td>3</td>
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## Semester 3

<table>
<thead>
<tr>
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<tbody>
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<td>ECE120</td>
<td>Communication with Families</td>
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<tr>
<td>ECE122</td>
<td>Parenting Relationships</td>
<td>2</td>
</tr>
<tr>
<td>ECE125</td>
<td>School Age Care</td>
<td>2</td>
</tr>
<tr>
<td>ECE260</td>
<td>Current Topics and Issues in Child Care</td>
<td>2</td>
</tr>
<tr>
<td>ECE284</td>
<td>Field Experience II</td>
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</tr>
<tr>
<td>ECE298</td>
<td>Child Development Career Strategies</td>
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<td>ECE945</td>
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<tr>
<td>SPC101</td>
<td>Fundamentals of Oral Communication</td>
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**Total Credits 16**

## Semester 4

<table>
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<th>Course Code</th>
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<td>Advanced Curriculum Planning</td>
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</tr>
<tr>
<td>ECE290</td>
<td>Early Childhood Program Administration</td>
<td>3</td>
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<tr>
<td>EDU246</td>
<td>Including Diverse Learners</td>
<td>3</td>
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<tr>
<td>PSY111</td>
<td>Introduction to Psychology</td>
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**Total Credits 12**

## Math Electives

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<tr>
<td>MAT122</td>
<td>College Algebra</td>
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<td>Calculus II</td>
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</tr>
<tr>
<td>MAT219</td>
<td>Calculus III</td>
<td>4</td>
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<tr>
<td>MAT772</td>
<td>Applied Math</td>
<td>3</td>
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</tbody>
</table>

**View Course Descriptions**

**Total Credits 16**
# Early Childhood Education – Diploma Courses

**Award:** Diploma  
**Program Start:** Fall, Spring  
**Enrollment Status:** Full-time or part-time

The Diploma program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

*If you are a current student* your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

### Required Background Screenings

Students must pass a DHS Criminal History Record Check and an FBI Fingerprint Check before being placed in Field Experience courses.

<table>
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**Total Credits 18**

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<td>ECE944</td>
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<tr>
<td>SOC110</td>
<td>Introduction to Sociology -OR-</td>
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</tr>
<tr>
<td>PSY102</td>
<td>Human and Work Relations</td>
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</table>
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<tr>
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<td>MAT219</td>
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<td>4</td>
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<tr>
<td>MAT772</td>
<td>Applied Math</td>
<td>3</td>
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</tbody>
</table>

Total Credits: 15
Associate Degree Nursing

The Associate Degree Nursing (ADN) program prepares students for entry-level practice as registered nurses and provides upward mobility for licensed practical nurses.

Students gain clinical practice in local hospitals, public mental health institutions, community health agencies, public school nursing, and local long-term care facilities.

Students must complete the Practical Nursing program before starting the Associate Degree Nursing program.

Graduates of the Associate Degree Nursing program are eligible to take the national and state/regional examinations for licensure, which is required to practice as a Registered Nurse in any state. Please keep in mind, a social security number is required in order to take exams and apply for licensure.

Accreditation

This program is approved by the Iowa Board of Nursing and the Commission on Institutes of the North Central Association.

Transfer Information

Hawkeye Community College is a member of the Iowa Articulation Plan, which creates a career path for Associate Degree Nursing to a Bachelor of Science in Nursing with a minimum of time and redundancy. For more information, contact a program advisor.
Associate Degree Nursing Careers

The Associate Degree Nursing program offers a variety of employment opportunities. Graduates are selected for jobs in:

- hospitals
- long-term care facilities
- clinics
- physicians' offices
- industrial health
- community health
- the armed forces

Starting Wages - $40,000 - $54,000 per year*

Registered Nursing is the largest healthcare profession with more than 2.7 million jobs nationwide. Iowa Workforce Development forecasts more than 1355 job openings each year for registered nurses through 2018.

Registered Nursing is one of the top occupations in Iowa with the most job openings.

*Source: Iowa Workforce Development

Employers

<table>
<thead>
<tr>
<th>Employer</th>
<th>Location</th>
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</thead>
<tbody>
<tr>
<td>Allen Memorial Hospital</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>Mayo Clinic</td>
<td>Rochester, MN</td>
</tr>
<tr>
<td>University of Iowa Hospitals &amp; Clinics</td>
<td>Iowa City, IA</td>
</tr>
<tr>
<td>Waverly Health Center</td>
<td>Waverly, IA</td>
</tr>
<tr>
<td>Wheaton Franciscan Hospitals</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td></td>
<td>Cedar Falls, IA</td>
</tr>
</tbody>
</table>

Program Contacts

Department Secretary
Linda Butler
Grundy Hall 159
319-296-4013
Email me

Dean
Candace Croft
Grundy Hall 159
319-296-4432
Email me
**Associate Degree Nursing Admission Requirements**

1. Before your Admission Application will be processed for the Associate Degree Nursing program you must:
   a. be fully accepted into the Practical Nursing program,
   b. have at least one semester completed in Practical Nursing,
   c. have, and maintain, current CPR certification, and
   d. have one year of high school chemistry with a grade of "C" or higher or equivalent college chemistry course with a grade of "C" or higher.

2. To be fully accepted into the Associate Degree Nursing program you must:
   a. have graduated from a regionally accredited Practical Nursing program with a program cumulative GPA of 2.70 or higher.
      Applicants cannot repeat any Practical Nursing courses to raise their Practical Nursing GPA once they have graduated from Practical Nursing.
   b. hold a current Iowa LPN license or get a current Iowa license before completion of first semester coursework in order to continue in the Associate Degree Nursing program.

3. Applicants with the highest points, as determined by the point system below, will receive priority admission to the program. Applicants must have a minimum of five points.

**Associate Degree Nursing Admission Point System**

<table>
<thead>
<tr>
<th>Point System</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cumulative Practical Nursing GPA 3.50 or higher</td>
<td>4 pts.</td>
</tr>
<tr>
<td>Cumulative Practical Nursing GPA 3.00 - 3.49</td>
<td>3 pts.</td>
</tr>
<tr>
<td>Cumulative Practical Nursing GPA 2.80 - 2.99</td>
<td>1 pt.</td>
</tr>
<tr>
<td>Cumulative Practical Nursing GPA 2.70 - 2.79</td>
<td>0 pts.</td>
</tr>
<tr>
<td>ACT Composite of 22 or higher</td>
<td>1 pt.</td>
</tr>
<tr>
<td>Hawkeye Community College Practical Nursing Graduate</td>
<td>1 pt.</td>
</tr>
<tr>
<td>Master of Arts or Master of Science Degree OR</td>
<td>3 pts.</td>
</tr>
<tr>
<td>Bachelor of Arts or Bachelor of Science Degree OR</td>
<td>2 pts.</td>
</tr>
<tr>
<td>Associate of Arts or Associate of Science Degree OR</td>
<td>1 pt.</td>
</tr>
</tbody>
</table>
Associate of Applied Arts or Associate of Applied Science Degree from appropriate health-related field 1 pt.

Have not repeated any Practical Nursing courses 1 pt.

3.50 - 4.00 cumulative GPA from the four general education courses noted with an asterisk (*) in the sequence of study 3 pts.

3.00 - 3.49 cumulative GPA from the four general education courses noted with an asterisk (*) in the sequence of study 2 pts.

Completion of all four general education courses without repeating a course 1 pt.

Admissions Process
1. Apply for admission.

2. Completed applicant files will be processed as follows:
   a. Applicants who do not meet the program’s admission requirements will be inactivated and will be sent an admissions inactivation letter.
   b. Applicants enrolled in coursework to complete the admission requirements will be candidates for admission.
   c. Applicants who meet the program’s admission requirements will be acceptable for admission and placed on the Eligible for Acceptance list. Placement on the list is determined by the highest point total earned.

3. We will accept approximately 32 students each Fall and Spring semester for the day session. Applicants will be accepted based on the points earned from the Associate Degree Nursing Admission Point System. Applicants with the highest point total will be given priority admission to the program.

4. If we have more applicants than spaces available and many students share the same point total, we will accept based upon the highest cumulative GPA from the Practical Nursing program.

5. Once offered acceptance to begin the Associate Degree Nursing program, if you choose to decline, you will be placed back on the Eligible for Acceptance list in order based on total points awarded from the admission criteria. This does not guarantee that you will be offered acceptance the following semester.

Hawkeye’s Equal Opportunity Statement
Associate Degree Nursing Courses

Award: Associate of Applied Science (AAS)
Program Start: Fall, Spring
Enrollment Status: Full-time only

The Associate Degree Nursing program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

Required Background Screenings to Participate in Clinicals
As a student in a health program at Hawkeye Community College you will be required to complete:

- a criminal background check,
- sex offender registry,
- child abuse registry, and
- dependent adult registry.

The outcome could possibly affect your opportunities to participate in the clinical setting.

Program Course Notes
- Students must achieve a minimum "C" grade in all courses that are required to complete the program.
- Students may complete the general education courses, marked with the gen ed icon, prior to full admission into the program.

### Semester 1

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
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<td>Transition to Professional Nursing</td>
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<td>ADN122</td>
<td>Advanced Nursing Skills</td>
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<td>Physical Assessment</td>
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<td>Advanced Adult Health Nursing I</td>
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**Total Credits 17**

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<tbody>
<tr>
<td>ADN331</td>
<td>Issues in Nursing Management</td>
<td>2</td>
</tr>
<tr>
<td>ADN410</td>
<td>Advanced Nursing in OB and PEDS</td>
<td>5</td>
</tr>
</tbody>
</table>

View Course Descriptions

Program Contacts

Department Secretary
Linda Butler
Grundy Hall 159
319-296-4013
Email me

Dean
Candace Croft
Grundy Hall 159
319-296-4432
Email me
### Semester 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADN477</td>
<td>Psychiatric Nursing</td>
<td>5</td>
</tr>
<tr>
<td>SOC110</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits:** 8

**View Course Descriptions**
Dental Assisting

The Dental Assisting program prepares students to assist the dentist at chair side, perform receptionist and clinical functions, and carry out selected dental laboratory work. Students gain valuable experience and training needed to work as a dental assistant.

Students train in Hawkeye's state-of-the-art Dental Clinic featuring 18 patient chairs, computerized patient record software, and a complete digital x-ray system. Hawkeye's on-campus Dental Clinic is supervised by more than 16 licensed dentists. Students complete a summer clinical allowing students to train in a real-world setting. The clinic is open to the public.

Graduates are eligible to take the national and state/regional examinations for licensure, which is required to practice in any state. A social security number is required to take the exams and apply for licensure.

Accreditation

The Dental Assisting program is accredited by the Commission on Dental Accreditation (CODA), a specialized accrediting body recognized by the Council on Postsecondary Accreditation and the United States Department of Education.

Commission on Dental Accreditation
American Dental Association
211 East Chicago Avenue
Chicago, IL 60611
312-440-4653

Transfer Information

Students in the Dental Assisting program interested in continuing their education should contact a program advisor.
Dental Assisting Careers

Graduates work in a variety of careers including:

- private or group practice
- general dentistry or specialty practices
- dental schools
- federal government dental facilities

Placement
Starting Wages - $27,500 - $36,000 per year*

*Source: Iowa Workforce Development

Employers

<table>
<thead>
<tr>
<th>Employer</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Anne Hennessey</td>
<td>Cedar Falls, IA</td>
</tr>
<tr>
<td>Kimball &amp; Beecher Family Dentistry</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>Dr. John Spragg</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>Foster Oral Surgery/Dr. Edwin King</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>Only Kids Dentistry/Dr. Jyoti Chawdury</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>People's Dental Clinic</td>
<td>Waterloo, IA</td>
</tr>
</tbody>
</table>

Program Contacts

Department Secretary
Linda Butler
Grundy Hall 159
319-296-4013
Email me

Dental Administrative Chair
Tonya Enright
CDA, RDH, BSDH, MEd
Grundy Hall 156
319-296-2329 ext.1121
Email me

Dean
Candace Croft
Grundy Hall 159
319-296-4432
Email me
Dental Assisting Admission Requirements

Basic Skill Competencies Requirements

**Option 1**
Score at least the following scores on any combination of the below assessment options:

<table>
<thead>
<tr>
<th>ACT sub scores</th>
<th>COMPASS scores</th>
<th>ASSET scores</th>
<th>ACCUPLACER scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>19 - Reading</td>
<td>82 - Reading</td>
<td>38 - Reading</td>
<td>90 - Reading</td>
</tr>
<tr>
<td>19 - English</td>
<td>41 - Writing</td>
<td>35 - Writing</td>
<td>77 - Sentence Skills</td>
</tr>
</tbody>
</table>

Basic Skills Competency in Math

Applicants can take the [ACT assessment](#) or the [COMPASS assessment](#) at Hawkeye. Pre-registration is required.

**Option 2**
Complete all of the following college success courses with a "C" grade or higher at Hawkeye Community College or comparable courses at another accredited college:

- ENG060 College Preparatory Writing I
- RDG040 College Preparatory Reading III

**Option 3**
Any combination of Option 1 and Option 2 fulfilling the basic skills requirements in reading, writing, and math.

Admissions Process

1. [Apply for admission](#).

2. Completed applicant files (we have your application, transcripts, and test scores) will be processed as follows:
   a. Applicants not meeting the program's admission requirements will be sent an admissions inactivation letter.
   b. Applicants meeting the program's admission requirements will be accepted.

3. We accept approximately 24 students and 10 alternates each Fall Semester. Applicants will be accepted based upon the date of their completed applicant. If many students share the same date for completing their applicant file, the application date will be used to prioritize acceptance.

4. If necessary, alternates will be contacted to fill unconfirmed positions in the program. Alternates will be given priority for the next term.

Hawkeye's Equal Opportunity Statement
Dental Assisting Courses

Award: Diploma  
Program Start: Fall only  
Enrollment Status: Full-time only

The Dental Assisting program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

Required Background Screenings to Participate in Clinicals
As a student in a health program at Hawkeye Community College you will be required to complete:

- a criminal background check,
- sex offender registry,
- child abuse registry, and
- dependent adult registry.

The outcome could possibly affect your opportunities to participate in the clinical setting.

Program Course Note
You must achieve a minimum "C" grade in all courses that are required to complete the program.

<table>
<thead>
<tr>
<th>Semester 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO163 Essentials of Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>DEA103 Orientation to Dental Assisting</td>
<td>2</td>
</tr>
<tr>
<td>DEA258 Dental Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>DEA302 Dental Radiography</td>
<td>3</td>
</tr>
<tr>
<td>DEA412 Dental Materials I</td>
<td>3</td>
</tr>
<tr>
<td>DEA513 Chairside Assisting I</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>COM730 Communications -OR-</td>
<td>3</td>
</tr>
<tr>
<td>ENG105 Composition I -AND-</td>
<td>3</td>
</tr>
<tr>
<td>SPC101 Fundamentals of Oral Communication</td>
<td>3</td>
</tr>
<tr>
<td>DEA263 Dental Science II</td>
<td>2</td>
</tr>
<tr>
<td>DEA417 Dental Materials II</td>
<td>2</td>
</tr>
<tr>
<td>DEA514 Chairside Assisting II</td>
<td>2</td>
</tr>
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</table>

View Course Descriptions  Total Credits 20
### Semester 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEA556</td>
<td>Assisting Clinic I</td>
<td>4</td>
</tr>
<tr>
<td>DEA603</td>
<td>Dental Specialties</td>
<td>2</td>
</tr>
<tr>
<td>DEA702</td>
<td>Dental Office Procedures</td>
<td>2</td>
</tr>
<tr>
<td>DEA577</td>
<td>Dental Assisting Clinic II</td>
<td>4</td>
</tr>
<tr>
<td>DEA591</td>
<td>Dental Assisting Seminar</td>
<td>1</td>
</tr>
<tr>
<td>PSY102</td>
<td>Human and Work Relations -OR-</td>
<td>3</td>
</tr>
<tr>
<td>PSY111</td>
<td>Introduction to Psychology -OR-</td>
<td>3</td>
</tr>
<tr>
<td>SOC110</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits 17**
Dental Hygiene

The Dental Hygiene program provides stimulating and rigorous classroom and clinical experience in Hawkeye's Dental Clinic. Students are educated in oral and dental hygiene sciences, natural sciences, clinical sciences, community health, and professional development.

Students train in Hawkeye's state-of-the-art Dental Clinic featuring 18 patient chairs, computerized patient record software, and a complete digital x-ray system. The clinic is open to the public.

Dental hygienists provide educational, clinical, and therapeutic services to the public focusing on disease prevention and health promotion. They also help patients develop and maintain good oral health.

Registered Dental Hygienist (RDH) is the designation for the licensed professional. The state license and the RDH credential assure the public and other professionals that you have successfully completed a nationally accredited dental hygiene program, a national written examination, and a state or regional clinical examination.

Graduates of the Dental Hygiene program are eligible to take the national and state/regional examinations for licensure, which is required to practice in any state. A social security number is required in order to take exams and apply for licensure.

Accreditation

The Dental Hygiene program is accredited by the Commission on Dental Accreditation (CODA), a specialized accrediting body recognized by the Council on Postsecondary Accreditation and the U.S. Department of Education.
Transfer Information
Students in the Dental Hygiene program interested in continuing their education should contact a program advisor.
Dental Hygiene Careers

Graduates are professionals who work in many settings including:

- private dental practices
- specialty practices
- HMOs
- long-term care/geriatric centers
- community outreach settings
- community health
- hospitals
- dental trade companies
- educational institutions
- research centers

Placement

Starting Wages - $57,000 - $66,500 per year

*Source: Iowa Workforce Development

Employers

<table>
<thead>
<tr>
<th>Employer</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black Hawk County Health Department</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>Dental Associates of Manchester</td>
<td>Manchester, IA</td>
</tr>
<tr>
<td>Kimball &amp; Beecher Family Dentistry</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>People’s Community Health Clinic</td>
<td>Clarksville, IA Waterlo, IA</td>
</tr>
</tbody>
</table>

Program Contacts

Department Secretary
Linda Butler
Grundy Hall 159
319-296-4013
Email me

Dental Administrative Chair
Tonya Enright
CDA, RDH, BSDH, MEd
Grundy Hall 156
319-296-2329 ext.1121
Email me

Dean
Candace Croft
Grundy Hall 159
319-296-4432
Email me
Dental Hygiene Admission Requirements

Basic Skill Competencies Requirements

Option 1
Score at least the following scores on any combination of the below assessment options:

<table>
<thead>
<tr>
<th>ACT sub scores</th>
<th>COMPASS scores</th>
<th>ASSET scores</th>
<th>ACCUPLACER scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>19 - Reading</td>
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<td>38 - Reading</td>
<td>90 - Reading</td>
</tr>
<tr>
<td>19 - English</td>
<td>65 - Writing</td>
<td>40 - Writing</td>
<td>98 - Sentence Skills</td>
</tr>
<tr>
<td>19 - Math</td>
<td>42 - Algebra</td>
<td>40 - Elementary Algebra</td>
<td>103 - Arithmetic OR</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>97 - Elementary Algebra</td>
</tr>
</tbody>
</table>

Applicants can take the [ACT assessment](#) or the [COMPASS assessment](#) at Hawkeye. Pre-registration is required.

Option 2
Complete all of the following college success courses with a "C" grade or higher at Hawkeye Community College or comparable courses at another accredited college:

- ENG061 College Preparatory Writing II
- RDG040 College Preparatory Reading III
- MAT063 Elementary Algebra

Option 3
Any combination of Option 1 and Option 2 fulfilling the basic skills requirements of algebra, reading, and writing.

Additional Requirements Before You Start the Program

- Prior to full acceptance into the Dental Hygiene program, you must complete [program prerequisite courses](#) with a minimum 2.75 cumulative GPA.
- Prior to the first day of classes, accepted students must be Health Care Provider Level CPR certified and have a physical exam with immunization record on Hawkeye Community College form.

Admissions Process

1. [Apply for admission](#).

2. Completed applicant files (we have your application, transcripts, and test scores) will be processed as follows:
   a. Applicants not meeting the program's admission requirements will be sent an admissions inactivation letter.
   b. Applicants enrolled in coursework to complete the basic skill competencies requirements and [program prerequisite courses](#) will become candidates for admission.
c. Upon completion of the program prerequisite courses and a cumulative GPA of 2.75 within these courses, applicants will be placed on the Eligible for Acceptance list. Placement on the list is determined by their admission requirement completion date.

3. Applications are processed for admission in March of each year for the following fall class provided the applicant is of senior high school status or older.

4. The program accepts approximately 22 applicants for each Fall Semester. Applicants will be accepted based on the date their applicant file was completed. If many students share the same date for completing their applicant file, the second criteria used will be the GPA from the program prerequisite courses.

5. If you are offered acceptance to begin the Dental Hygiene program and you choose to decline your acceptance, your file will be inactivated and you will need to re-apply for the admission to the program when interested.

Hawkeye’s Equal Opportunity Statement
Dental Hygiene Courses

Award: Associate of Applied Science (AAS)
Program Start: Fall only
Enrollment Status: Full-time only

The Dental Hygiene program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

Required Background Screenings to Participate in Clinicals
As a student in a health program at Hawkeye Community College you will be required to complete:

- a criminal background check,
- sex offender registry,
- child abuse registry, and
- dependent adult registry.

The outcome could possibly affect your opportunities to participate in the clinical setting.

Program Course Notes

- Students are not eligible for the Iowa Vocational Technical Tuition Grant while taking the prerequisite courses.
- Students must achieve a minimum "C" grade in all courses that are required to complete the program.
- We strongly advise students to complete all of the general education courses, marked with the gen ed icon, prior to full admission into the program.

<table>
<thead>
<tr>
<th>Prerequisites</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIO168 Human Anatomy and Physiology I with Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIO173 Human Anatomy and Physiology II with Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIO185 Microbiology with lab</td>
<td>3</td>
</tr>
<tr>
<td>CHM122 Introduction to General Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHM132 Introduction to Organic and Biochemistry</td>
<td>4</td>
</tr>
<tr>
<td>HSC113 Medical Terminology for Health Sciences</td>
<td>2</td>
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</tbody>
</table>

View Course Descriptions

Total Credits 21
<table>
<thead>
<tr>
<th>Semester 1</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>DHY115 Head and Neck Anatomy for Dental Hygienist</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>DHY116 Tooth Morphology</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>DHY121 Oral Histology and Embryology</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>DHY162 Oral Radiology</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>DHY175 Fundamentals of Clinical Dental Hygiene</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>View Course Descriptions</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Semester 2</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>DHY141 General and Oral Pathology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>DHY187 Clinical Dental Hygiene II</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>DHY188 Clinical Dental Hygiene II Seminar</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>DHY210 Introduction to Periodontology</td>
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<td></td>
</tr>
<tr>
<td>DHY222 Biomaterials for the Dental Hygienist</td>
<td>3</td>
<td></td>
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<tr>
<td>DHY240 Ethics and Jurisprudence</td>
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<tr>
<td>DHY260 Oral Health Education</td>
<td>2</td>
<td></td>
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<tr>
<td>View Course Descriptions</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Semester 3 – Summer</th>
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</tr>
</thead>
<tbody>
<tr>
<td>PSY111 Introduction to Psychology</td>
<td>GEN ED</td>
<td>3</td>
</tr>
<tr>
<td>SOC110 Introduction to Sociology</td>
<td>GEN ED</td>
<td>3</td>
</tr>
<tr>
<td>View Course Descriptions</td>
<td></td>
<td>Total Credits 6</td>
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<table>
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<tr>
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<tr>
<td>BIO151 Nutrition</td>
<td>GEN ED</td>
<td>3</td>
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<tr>
<td>DHY131 Pharmacology</td>
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<td>2</td>
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<tr>
<td>DHY211 Periodontology</td>
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<td>2</td>
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<tr>
<td>DHY254 Community Oral Health I</td>
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<td>2</td>
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<tr>
<td>DHY271 Pain Control</td>
<td></td>
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<tr>
<td>DHY297 Clinical Dental Hygiene III</td>
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<tr>
<td>DHY298 Clinical Dental Hygiene III Seminar</td>
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<td>2</td>
</tr>
<tr>
<td>View Course Descriptions</td>
<td></td>
<td>Total Credits 17</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester 5</th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DHY255 Community Oral Health II</td>
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<td>2</td>
</tr>
<tr>
<td>DHY272 Interdisciplinary Health Care</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>DHY307 Clinical Dental Hygiene IV</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>DHY308 Clinical Dental Hygiene IV Seminar</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>DHY901</td>
<td>Independent Study Clinical Dental Hygiene (optional)</td>
<td>1</td>
</tr>
<tr>
<td>ENG105</td>
<td>Composition I</td>
<td>3</td>
</tr>
<tr>
<td>SPC101</td>
<td>Fundamentals of Oral Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits 15

View Course Descriptions
Medical Laboratory Technology

The Medical Laboratory Technology program teaches the knowledge and skills necessary to perform general tests in all laboratory areas including blood banking, hematology, immunology, and microbiology. Working under the supervision of a medical technologist or pathologist, a medical laboratory technician hunts for clues to the absence, presence, extent, and causes of diseases.

Students learn clinical laboratory techniques along with formal coursework in basic science and liberal arts.

Graduates are awarded an Associates in Applied Science degree and are eligible to take the national and state/regional examinations for licensure, which is required to practice in any state. A social security number is required in order to take exams and apply for licensure.

Academic Affiliate Program

Hawkeye has academic affiliate arrangements that allow students to complete the first two semesters of the Medical Laboratory Technology program at an academic affiliate college. Students then complete the rest of the program at Hawkeye.

Academic affiliate colleges for the Medical Laboratory Technician program include:

- Kirkwood Community College - Cedar Rapids, Iowa
- North Iowa Area Community College (NIACC) - Mason City, Iowa
- Northeast Iowa Community College (NICC) - Calmar and Peosta, Iowa

Accreditation

This program is accredited by the National Accrediting Agency for Clinical Laboratory Services (NAACLS), a non-profit organization that independently accredits clinical laboratory science programs.

NAACLS
5600 N. River Road, Suite 720
Transfer Information
Students in the Medical Laboratory Technology program interested in continuing their education should contact a program advisor.
Medical Laboratory Technology Careers

A career in the medical laboratory technology industry offers unlimited choices and your education will prepare you directly for a job. The increased demand for certified medical laboratory technicians and laboratory services has created employment opportunities for our graduates in hospital laboratories, clinics, physicians' offices, community health agencies, research institutions, and the armed forces. Other areas our graduates may work in include:

- industrial laboratories
- environmental laboratories
- pharmaceutical laboratories
- sales with laboratory supply companies

Placement
Starting Wages: $29,500 - $39,500 per year*

*Source: Iowa Workforce Development

Employers

<table>
<thead>
<tr>
<th>Employer</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allen Memorial Hospital</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>Mercy Hospital</td>
<td>Iowa City, IA</td>
</tr>
<tr>
<td>Mercy Medical Center - North Iowa</td>
<td>Mason City, IA</td>
</tr>
<tr>
<td>United Clinical Labs</td>
<td>Dubuque, IA</td>
</tr>
<tr>
<td>Wheaton Franciscan Hospitals</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td></td>
<td>Cedar Falls, IA</td>
</tr>
</tbody>
</table>

Program Contacts

**Department Secretary**
Linda Butler
Grundy Hall 159
319-296-4013
Email me

**Program Advisor**
Amy Kapanka
Cedar Falls Center 112
319-296-2329 ext.1357
Email me

**Dean**
Candace Croft
Grundy Hall 159
319-296-4432
Email me
Medical Laboratory Technology Admission Requirements

Basic Skill Competencies Requirements

Option 1
Score at least the following scores on any combination of the below assessment options:

<table>
<thead>
<tr>
<th>ACT sub scores</th>
<th>COMPASS scores</th>
<th>ASSET scores</th>
<th>ACCUPLACER scores</th>
</tr>
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<tbody>
<tr>
<td>19 - Reading</td>
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<td>38 - Reading</td>
<td>90 - Reading</td>
</tr>
<tr>
<td>19 - English</td>
<td>65 - Writing</td>
<td>40 - Writing</td>
<td>98 - Sentence Skills</td>
</tr>
<tr>
<td>19 - Math</td>
<td>42 - Algebra</td>
<td>40 - Elementary Algebra</td>
<td>103 - Arithmetic OR</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>97 - Elementary Algebra</td>
</tr>
</tbody>
</table>

AND one year high school Biology with "C" grade or higher in each semester.

Applicants can take the ACT assessment or the COMPASS assessment at Hawkeye. Pre-registration is required.

Option 2
Complete all of the following college success courses with a "C" grade or higher at Hawkeye Community College or comparable courses at another accredited college:

- ENG061 College Preparatory Writing II
- RDG040 College Preparatory Reading III
- MAT063 Elementary Algebra
- BIO042 Prep. Science for Health Careers

Option 3
Any combination of the above fulfilling the basic skills requirements of algebra, reading, writing, and biology.

Admissions Process

1. Apply for admission.

2. Completed applicant files (we have your application, transcripts, and test scores) will be processed as follows:
   a. Applicants meeting the program’s admission requirements will be sent an admissions inactivation letter.
   b. Applicants meeting the program’s admission requirements will be accepted.

3. We accept approximately 24 students and 10 alternates each Fall and Spring Semester. Applicants will be accepted based on the date their completed applicant file. If many students share the same date for completing their applicant files, the application date will be used to prioritize their acceptance.

4. If necessary, alternates will be contacted to fill unconfirmed positions in the program. Alternates will be given priority for the next term.
Medical Laboratory Technology Courses

Award: Associate of Applied Science (AAS)
Program Start: Fall, Spring
Enrollment Status: Full-time or part-time

The Medical Laboratory Technology program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

Required Background Screenings to Participate in Clinicals
As a student in a health program at Hawkeye Community College you will be required to complete:

- a criminal background check,
- sex offender registry,
- child abuse registry, and
- dependent adult registry.

The outcome could possibly affect your opportunities to participate in the clinical setting.

Program Notes

- Students must achieve a minimum "C" grade in all courses required to complete the program.

- Applicants meeting the general admission requirements may take the courses below marked with an asterisk (*) prior to full acceptance to the Medical Laboratory Technology program.

<table>
<thead>
<tr>
<th>Semester 1 – Fall</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO163</td>
<td>Essentials of Anatomy and Physiology</td>
</tr>
<tr>
<td>CHM122</td>
<td>Introduction to General Chemistry</td>
</tr>
<tr>
<td>MLT101</td>
<td>Introduction to Lab Science *</td>
</tr>
<tr>
<td>MLT103</td>
<td>Lab Mathematics *</td>
</tr>
<tr>
<td>PSY111</td>
<td>Introduction to Psychology -OR-</td>
</tr>
<tr>
<td>SOC110</td>
<td>Introduction to Sociology</td>
</tr>
<tr>
<td>SPC101</td>
<td>Fundamentals of Oral Communication</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester 2 – Spring</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO113</td>
<td>General Biology II -OR-</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>CHM132</td>
<td>Introduction to Organic and Biochemistry</td>
</tr>
<tr>
<td>BIO185</td>
<td>Microbiology w/lab</td>
</tr>
<tr>
<td>ENG105</td>
<td>Composition I</td>
</tr>
<tr>
<td>HSC113</td>
<td>Medical Terminology for Health Sciences *</td>
</tr>
<tr>
<td>MLT120</td>
<td>Urinalysis *</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
</tr>
</tbody>
</table>

**Semester 3 – Summer**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLT110</td>
<td>Fundamental Lab Techniques *</td>
<td>3</td>
</tr>
<tr>
<td>MLT130</td>
<td>Hematology *</td>
<td>3</td>
</tr>
<tr>
<td>MLT250</td>
<td>Clinical Microbiology</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
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</table>

**Semester 4 – Fall**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MLT230</td>
<td>Advanced Hematology *</td>
<td>3</td>
</tr>
<tr>
<td>MLT233</td>
<td>Hemostasis and Thrombosis</td>
<td>2</td>
</tr>
<tr>
<td>MLT240</td>
<td>Clinical Chemistry I</td>
<td>7</td>
</tr>
<tr>
<td>MLT252</td>
<td>Parasitology *</td>
<td>1</td>
</tr>
<tr>
<td>MLT260</td>
<td>Immunohematology</td>
<td>4</td>
</tr>
<tr>
<td>MLT270</td>
<td>Immunology and Serology</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>19</strong></td>
</tr>
</tbody>
</table>

**Semester 5 – Spring**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLT285</td>
<td>Clinical Practicum: Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>MLT287</td>
<td>Clinical Practicum: Hematology</td>
<td>4</td>
</tr>
<tr>
<td>MLT288</td>
<td>Clinical Practicum: Microbiology</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>12</strong></td>
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</table>

**Semester 6 – Summer**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLT283</td>
<td>Clinical Practicum: Urinalysis</td>
<td>1</td>
</tr>
<tr>
<td>MLT284</td>
<td>Clinical Practicum: Immunohematology</td>
<td>2</td>
</tr>
<tr>
<td>MLT286</td>
<td>Clinical Practicum: Immunology and Serology</td>
<td>1</td>
</tr>
<tr>
<td>MLT291</td>
<td>Clinical Practicum: Lab Survey and Review</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>5</strong></td>
</tr>
</tbody>
</table>
Occupational Therapy Assistant

The Occupational Therapy Assistant program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE). As a result of this action, Hawkeye Community College Occupational Therapy Assistant students may now sit for the National Board.

The Occupational Therapy Assistant program prepares students with entry-level skills and knowledge to provide treatments that improve consumers’ ability to achieve independence in everyday activities and to enjoy life to its fullest. Students will learn how to provide occupational therapy interventions for clients with various impairments and monitor their progress while following an occupational therapy plan of care. They will also learn to effectively educate and communicate with patients, families, and other healthcare providers.

Occupational therapy assistants work under the direction and supervision of an occupational therapist. Duties may include instructing patients in performance of activities of daily living, teaching clients to use adaptive equipment or modifying tasks to increase successful participation in meaningful occupations, and educating consumers in health and wellness.

Due to the nature of the work environment and the physical exertion often required to assist patients, you will need to have a moderate degree of strength. For example, you will need to be able to lift patients, kneel, stoop, and stand for long periods of time.

Accreditation

The Occupational Therapy Assistant program at Hawkeye Community College is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA).

ACOTE
4720 Montgomery Lane, Suite 200
Bethesda, MD 20814-3449
Occupational Therapy Assistant Careers

Occupational Therapy Assistants work in a wide variety of settings including homes, hospitals, rehabilitation clinics, community centers, out-patient facilities, schools, and nursing homes.

Placement

Graduates can expect job prospects to be very good. The field is expected to grow 30% through 2018, according to the Bureau of Labor statistics. The figures are based on the continued rise in individuals with disabilities or limited function and a growing elderly population that is vulnerable to chronic and debilitating conditions requiring therapeutic services.

Starting Wages: $38,000 - $48,00 per year*

*Source: Iowa Workforce Development

Associations

- The American Occupational Therapy Association, Inc. (AOTA)
Occupational Therapy Assistant Admission Requirements

The Occupational Therapy Assistant program at Hawkeye is considered a 1+1 model. Students must complete separate admissions processes for Phase I and Phase II.

Basic Skill Competencies Requirements

**Option 1**
Score at least the following scores on any combination of the below assessment options:

<table>
<thead>
<tr>
<th>ACT sub scores</th>
<th>COMPASS scores</th>
<th>ASSET scores</th>
<th>ACUPLACER scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>19 - Reading</td>
<td>82 - Reading</td>
<td>38 - Reading</td>
<td>90 - Reading</td>
</tr>
<tr>
<td>19 - English</td>
<td>65 - Writing</td>
<td>40 - Writing</td>
<td>98 - Sentence Skills</td>
</tr>
<tr>
<td>19 - Math</td>
<td>42 - Algebra</td>
<td>40 - Elementary Algebra</td>
<td>103 - Arithmetic OR</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>97 - Elementary Algebra</td>
</tr>
</tbody>
</table>

Applicants can take the ACT assessment or the COMPASS assessment at Hawkeye. Pre-registration is required.

**Option 2**
Complete all of the following college success courses with a "C" grade or higher at Hawkeye Community College or comparable courses at another accredited college:

- ENG061 College Preparatory Writing II
- RDG040 College Preparatory Reading III
- MAT063 Elementary Algebra

**Option 3**
Any combination of the above fulfilling the basic skills requirements of algebra, reading, and writing.

Phase I Admissions Process

1. [Apply for admission](#).

2. Completed applicant files (we have your application, transcripts, and test scores) will be processed as follows:
   a. Applicants not meeting the program's basic skill competencies requirements will be sent an admissions inactivation letter.
   b. Applicants meeting the program's basic skill competencies requirements will be considered Occupational Therapy Assistant Wait students and will be able to take Phase I courses.

   Being a "Wait" student does not guarantee Phase II acceptance.

Phase II Program Entrance Requirements

Before applying to Phase II of the program, applicants must complete the following requirements.

1. Complete one year of the following courses, or one semester of a college-level comparable course, with a "C" grade or higher.
2. Proof of completion of a total of 24 observation hours with a licensed occupational therapist or occupational therapy assistant at three different clinical sites (eight hours per site) and two different settings.

Observations must include at least three different types of facilities (example: outpatient, hospital inpatient, home health, or long-term care).

Arranging observations is the responsibility of the student.

Document the observations on the Pre-Admission Observation Hours form [pdf]. Return the form with your Phase II application. Applications will not be considered until observation hours are complete.

3. At least 15 credits of Phase I coursework must be completed with the required cumulative GPA and individual course grades prior to applying for Phase II of the program.

Phase II Admissions Process

1. To be considered for Phase II acceptance, applicants must have completed all of the following:
   a. Phase I Admissions Process
   b. Phase II program entrance requirements
   c. Phase II OTA Program Application Packet.

You can get your Phase II application packet:
  ■ outside of Health Education and Services Center 208
  ■ by emailing the program advisor, or
  ■ by printing and completing the following documents:
    ■ Program Application [pdf]
    ■ Curriculum Checklist [pdf]
    ■ Pre-Admission Observation Hours [pdf]
    ■ Student Health and Immunization Record [pdf] (due by the start of phase II)
    ■ Iowa Core Performance Standards for Health Care Career Programs Acknowledgement Form [pdf]

2. After the completed application is received by the program, a review of the application will be completed and if accepted, the Occupational Therapy Assistant program will conduct interviews with perspective students prior to acceptance into the Phase II.

3. Phase II program applicants will continue with Phase II of the program as openings are assigned. Students will be notified of their acceptance or non-acceptance via their Hawkeye email.

4. We accept approximately 20 students into Phase II each Fall Semester. Applicants will be accepted based on the initial date of their completed Phase II applicant file.

5. Applications need to be submitted by May 1 to be considered for the upcoming fall, Phase II, of the OTA Program.

6. On receiving notification of acceptance into Phase II of the OTA Program, the applicant has one week from the letter date to confirm acceptance into the program by contacting either Margo Kreger, OTA Program Director or Cindy Koehn, Academic Fieldwork Coordinator.

Please be advised that the seat of any student who fails to confirm acceptance during the time period will be offered to the next student on the list. In this case, the student will need to begin the application process again.
7. If necessary alternates will be contacted, based on the date the Phase II program applicant file was completed, to fill unconfirmed positions in the program.

Hawkeye's Equal Opportunity Statement
Occupational Therapy Assistant Courses

Award: Associate of Applied Science (AAS)
Program Start: Fall only
Enrollment Status: Full-time or part-time.

The Occupational Therapy Assistant program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

Phase I – Foundational Coursework

Phase I Notes

• Students are not eligible for the Iowa Vocational Technical Tuition Grant while taking Phase I courses.

• A minimum cumulative GPA of 2.75 is required for Phase I with no lower than a:
  ◦ "B" in BIO168 Human Anatomy and Physiology I w/lab,
  ◦ "B" in BIO173 Human Anatomy and Physiology II w/lab, and
  ◦ "C" in any individual Phase I general education course.

• BIO168 and BIO173 must have been completed within the last five years of starting Phase II, unless waived by the program chair.

<table>
<thead>
<tr>
<th>Semester 1 – Fall</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO168</td>
<td>Human Anatomy and Physiology I w/Lab</td>
</tr>
<tr>
<td>ENG105</td>
<td>Composition I</td>
</tr>
<tr>
<td>HSC113</td>
<td>Medical Terminology for Health Sciences</td>
</tr>
<tr>
<td>MAT110</td>
<td>Math for Liberal Arts</td>
</tr>
<tr>
<td>PSY111</td>
<td>Introduction to Psychology</td>
</tr>
</tbody>
</table>

View Course Descriptions

Total Credits 15

<table>
<thead>
<tr>
<th>Semester 2 – Spring</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO173</td>
<td>Human Anatomy and Physiology II w/Lab</td>
</tr>
<tr>
<td>CSC110</td>
<td>Introduction to Computers</td>
</tr>
<tr>
<td>PSY121</td>
<td>Developmental Psychology</td>
</tr>
<tr>
<td>PSY241</td>
<td>Abnormal Psychology</td>
</tr>
<tr>
<td>SOC110</td>
<td>Introduction to Sociology -OR-</td>
</tr>
</tbody>
</table>
Phase II – Technical Courses and Clinical Experience

Phase II Notes

- Phase II must be completed at full-time status.
- Students will complete Phase II in approximately 12 months.
- Before students can begin Phase II they must complete the Phase II admissions process.
- Students must earn a grade of “C” or higher in all of their Phase II coursework. Less than a “C” is considered failing.
- Students may not progress with other coursework until a failed course is retaken.
- Students may only fail one Phase II course; failing more than one course will be grounds for dismissal from the program.

Clinical Experience Requirements

Clinical experiences are completed off-campus. Sites may be local, in-state, or out-of-state. Students are responsible for their own transportation to and from clinical education, as well as any associated housing costs. Students will not be allowed to select specific sites for clinical education, but may make requests for special needs or geographical locations.

Participation in clinical education requires:

1. Criminal background, sex offender, and adult/dependent abuse background checks are required prior to the first day of Phase II courses. Failing a background check will result in dismissal from the program.

2. Students are required to complete CPR, HIPPA, First Aid, Mandatory Reporting, OSHA training prior to the first day of clinical course work. This training is part of Phase II courses.

3. Getting a physical exam and updated immunizations, including current hepatitis B series (unless signs waiver), MMR, and current tetanus. Polio and meningitis are also recommended. Current TB test results are required. This must be recorded on the Hawkeye Community College Student Health and Immunization Record form prior to the first day of Phase II courses.

Physical and immunizations must be up to date and maintained until the following September and/or completion of all fieldwork. Failure to do so will disrupt fieldwork placement and jeopardize your position in the program.

A dress code for clinical education exists and may be dictated by the clinical site.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>OTA101</td>
<td>Introduction to Occupational Therapy</td>
<td>3</td>
</tr>
<tr>
<td>OTA102</td>
<td>Human Movement &amp; Occupation</td>
<td>3</td>
</tr>
<tr>
<td>OTA103</td>
<td>Task Analysis</td>
<td>3</td>
</tr>
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<td>OTA104</td>
<td>Assistive Tech and EM</td>
<td>2</td>
</tr>
<tr>
<td>OTA201</td>
<td>Pediatrics &amp; Occupation</td>
<td>3</td>
</tr>
<tr>
<td>OTA202</td>
<td>Pediatric OTA Skills</td>
<td>3</td>
</tr>
<tr>
<td>OTA203</td>
<td>Level I Fieldwork A</td>
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### Semester 4 – Spring

<table>
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<tr>
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<th>Course Name</th>
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<tbody>
<tr>
<td>OTA301</td>
<td>Adult Conditions &amp; Occupation</td>
<td>4</td>
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<tr>
<td>OTA302</td>
<td>Physical OTA Skills</td>
<td>3</td>
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<tr>
<td>OTA303</td>
<td>Psychosocial OTA Skills</td>
<td>3</td>
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<tr>
<td>OTA304</td>
<td>Level I Fieldwork B</td>
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<tr>
<td>OTA401</td>
<td>Elders &amp; Occupation</td>
<td>2</td>
</tr>
<tr>
<td>OTA402</td>
<td>OTA Skills for Elders</td>
<td>2</td>
</tr>
<tr>
<td>OTA501</td>
<td>Professional Practice for OTA</td>
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Total Credits 19

### Semester 5 – Summer

<table>
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<tr>
<th>Course Code</th>
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</tr>
<tr>
<td>OTA503</td>
<td>Level II Fieldwork B</td>
<td>5</td>
</tr>
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</table>

Total Credits 10
National Certification Examination

Most states require licensure in order to practice. State licensure is usually based on the results of the National Board for Certification in Occupational Therapy (NBCOT) Certification Examination.

<table>
<thead>
<tr>
<th></th>
<th>Number of Program Graduates</th>
<th>Number of first-time test takers</th>
<th>Number of first-time test takers who passed the exam</th>
<th>Percentage of first-time test takers who passed the exam</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>100%</td>
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<tr>
<td>2013</td>
<td>12</td>
<td>10</td>
<td>10</td>
<td>100%</td>
</tr>
</tbody>
</table>

Program Contacts

Department Secretary
Linda Butler
Grundy Hall 159
319-296-4013
Email me

Program Advisor
Margo Kreger
Health Education and Services Center 208
319-296-2329 ext.1255
Email me

Dean
Candace Croft
Grundy Hall 159
319-296-4432
Email me
Physical Therapist Assistant

The Physical Therapist Assistant program prepares students with the entry-level skills and knowledge to provide treatments that improve patients’ mobility, relieve pain, and prevent or lessen physical disabilities.

Students will learn physical therapy interventions, data collection techniques, and how to follow a physical therapy plan of care. They will also learn to effectively educate and communicate with patients, families, and other healthcare providers.

Physical therapist assistants work under the direction and supervision of a physical therapist. Duties may include instructing patients in exercises and activities of daily living, performing manual treatments, and administering modalities such as ultrasound.

Accreditation

Effective May 15, 2014 the Physical Therapist Assistant program at Hawkeye Community College has been placed on probation by the Commission on Accreditation in Physical Therapy Education (CAPTE), 1111 North Fairfax Street, Alexandria, Virginia 22314; telephone: 703-706-3245; email: accreditation@apta.org; website: www.capteonline.org.

Probation is an accredited status; however, probation signals that the program’s accreditation is in jeopardy if the issues identified by CAPTE are not resolved in a timely manner.

Hawkeye Community College is committed to academic excellence and currently is actively working to resolve outstanding issues. As a demonstration of that commitment, Hawkeye Community College has retained the assistance of a consultant with expertise in PTA programs and accreditation processes.

Hawkeye Community College remains confident that its PTA program will be reinstated to full accreditation status as awarded by CAPTE after its next program review in the fall of 2014.
### Graduation, National Exam Pass, and Employment Rates

<table>
<thead>
<tr>
<th>Phase 2 Class</th>
<th>Program Graduation</th>
<th>National Exam Pass*</th>
<th>Employment**</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011-2012</td>
<td>89.5%</td>
<td>69%</td>
<td>89%</td>
</tr>
<tr>
<td>2012-2013</td>
<td>85%</td>
<td>94%</td>
<td>TBD</td>
</tr>
</tbody>
</table>

* Ultimate pass rate may change as students retake the exam.

** Graduate Employment Rates are determined six months after the students first national exam opportunity. Data reflects those who passed the exam.
About the Physical Therapist Assistant Profession

Physical therapy, as a profession, dates from the beginning of the 20th century, when survivors of polio and WWI injuries created a demand for rehabilitation specialists. Physical therapy today is a health care specialty grounded on a foundation of evidence-based practice concerned with treating disorders that result in movement and functional limitations.

Clinical application of the science restores function, improves mobility, relieves pain, and prevents or limits permanent physical disabilities. The profession also works to promote overall fitness and health.

Who are Physical Therapist Assistants?
The physical therapist assistant is a technically educated health care provider who assists the physical therapist in the provision of physical therapy.

The physical therapist performs an examination and evaluation, develops a diagnosis, determines the prognosis then develops a plan of care for the patient/client.

The physical therapist assistant assists the physical therapist in implementing treatment programs according to the plan of care.

Duties may include:

- instructing patients in exercises and activities of daily living
- administering modalities and other treatment procedures
- reporting to the physical therapist on the patient’s response to treatment.

Physical therapist assistants work in a wide variety of settings including hospitals, rehabilitation clinics, outpatient facilities, schools, and nursing homes.

Is Physical Therapist Assistant the Career Path for Me?
If you can answer yes to the questions below, a career as a Physical Therapy Assistant may be a good fit for you.

Do you:

- enjoy helping people achieve a better quality of life?
- enjoy working as part of a team toward a common goal?
- have a compassionate and caring personality?

Can you:

- sit, bend, reach, and/or walk and stand for most of the day?
- lift and carry up to 35% of your own body weight?
- communicate effectively in written and verbal forms?
- place the needs of a patient above your own?
- use your vision and touch for patient assessment?
- use your fine and gross motor skills to assist a patient?
Physical Therapist Assistant Careers

Physical Therapist Assistants work in a wide variety of settings including hospitals, rehabilitation clinics, outpatient facilities, schools, and nursing homes.

Placement
Starting wages: $30,500-$44,000 per year*

Physical therapist assistant is one of the fastest growing occupations in Iowa

* Source: Iowa Workforce Development
Physical Therapist Assistant Admission Requirements

The Physical Therapist Assistant program at Hawkeye is considered a 1+1 model. Students must complete separate admissions processes for Phase I and Phase II.

Basic Skill Competencies Requirements

Option 1
Score at least the following scores on any combination of the below assessment options:

<table>
<thead>
<tr>
<th>ACT sub scores</th>
<th>COMPASS scores</th>
<th>ASSET scores</th>
<th>ACCUPLACER scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>19 - Reading</td>
<td>82 - Reading</td>
<td>38 - Reading</td>
<td>90 - Reading</td>
</tr>
<tr>
<td>19 - English</td>
<td>65 - Writing</td>
<td>40 - Writing</td>
<td>98 - Sentence Skills</td>
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<tr>
<td>19 - Math</td>
<td>42 - Algebra</td>
<td>40 - Elementary Algebra</td>
<td>103 - Arithmetic OR</td>
</tr>
</tbody>
</table>

Applicants can take the ACT assessment or the COMPASS assessment at Hawkeye. Pre-registration is required.

Option 2
Complete all of the following college success courses with a "C" grade or higher at Hawkeye Community College or comparable courses at another accredited college:

- ENG061 College Preparatory Writing II
- RDG040 College Preparatory Reading III
- MAT063 Elementary Algebra

Option 3
Any combination of the above fulfilling the basic skills requirements of algebra, reading, and writing.

Phase I Admissions Process

1. [Apply for admission](#).

2. Completed applicant files (we have your application, transcripts, and test scores) will be processed as follows:
   a. Applicants not meeting the program's basic skill competencies requirements will be sent an admissions inactivation letter.
   b. Applicants meeting the program’s basic skill competencies requirements will be considered Physical Therapist Assistant Wait students and will be able to take Phase I courses.

   Being a "Wait" student does not guarantee Phase II acceptance.

Phase II Program Entrance Requirements

Before applying to Phase II of the program, applicants must complete the following requirements.

1. One semester of high school physics with a grade "C" or better is required. A full year of high school physics is suggested.
If you currently attend an Iowa high school that does not offer physics or you cannot work it into your schedule, discuss the possibility of taking physics through the Iowa Communications Network with your high school guidance counselor.

OR

If you have graduated from high school, a remedial course at the high school or college level will be required to fulfill this entrance requirement. A high school level course is available for post-high school students. Contact the program advisor for more information.

2. We recommend applicants complete one year of the following high school courses, or one semester of a college-level comparable course, with a "C" grade or higher, however, these courses are not required for admission.
   - Math (algebra or geometry)
   - Biology
   - English

3. Proof of completion of a total of 24 observation hours with a licensed physical therapist or physical therapist assistant at three different clinical sites (eight hours per site).

   Observations must include at least two different types of facilities (example: outpatient, hospital inpatient, home health, rehab center, or long-term care).

   Arranging observations is the responsibility of the student. You will need to call the facility ahead of time to arrange an observation. Don't forget to ask about any requirements you must meet in order to observe and the dress code.

   Document the observations on the Pre-Admission Observation Hours form [pdf]. Return the form with your Phase II application.

4. Attend a PTA.W MORE session if attending classes at Hawkeye or an interview with a Physical Therapist Assistant faculty member if transferring in all of Phase I coursework. Contact the program advisor to schedule an interview.

5. At least 18 credits of Phase I coursework must be completed with the required cumulative GPA and individual course grades prior to applying for Phase II of the program.

6. All Phase I coursework must be completed by the end of the spring term that precedes Phase II.

Phase II Admissions Process

1. To be considered for Phase II acceptance, applicants must have completed all of the following:
   a. Phase I Admissions Process
   b. Phase II program entrance requirements
   c. Phase II PTA Program Application Packet. You can get your Phase II application packet outside of Health Education and Services Center 208 or by emailing the program advisor.

      Phase 2 Application Checklist [pdf]: this form was created to help applicants complete their Phase II program applicant file. You do not need to submit this form in your Application Packet.

2. Phase II applicants will continue with Phase II of the program as openings are assigned. Students will be notified of their acceptance or non-acceptance via their Hawkeye email.

3. We accept approximately 20 students into Phase II each Fall Semester. Applicants will be accepted based on the initial date of their completed Phase II applicant file.

4. If necessary, alternates will be contacted, based on the date the Phase II program applicant file was completed, to fill unconfirmed positions in the program.
Physical Therapist Assistant Courses

Award: Associate of Applied Science (AAS)
Program Start: Fall only

The **Physical Therapist Assistant program** requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

**Phase I – Foundational Coursework**

**Phase I Notes**
- Students are not eligible for the Iowa Vocational Technical Tuition Grant while taking Phase I courses.
- A minimum cumulative GPA of 2.75 is required for Phase I with no lower than:
  - "B-" in BIO168 Human Anatomy and Physiology I w/lab,
  - "B-" in BIO173 Human Anatomy and Physiology II w/lab, and
  - "C" in any individual Phase I general education course.
- BIO168 and BIO173 must have been completed within the last five years of starting Phase II, unless waived by the program chair.

**Semester 1 – Fall**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO168</td>
<td>Human Anatomy and Physiology I w/Lab</td>
<td>4</td>
</tr>
<tr>
<td>CSC110</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>ENG105</td>
<td>Composition I</td>
<td>3</td>
</tr>
<tr>
<td>HSC113</td>
<td>Medical Terminology for Health Sciences</td>
<td>2</td>
</tr>
<tr>
<td>PSY111</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC110</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
</tbody>
</table>

**Semester 2 – Spring**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO173</td>
<td>Human Anatomy and Physiology II w/Lab</td>
<td>4</td>
</tr>
<tr>
<td>MAT110</td>
<td>Math for Liberal Arts</td>
<td>3</td>
</tr>
<tr>
<td>PSY121</td>
<td>Developmental Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC205</td>
<td>Diversity in America</td>
<td>3</td>
</tr>
<tr>
<td>SPC101</td>
<td>Fundamentals of Oral Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits 18**

**Program Contacts**

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**Program Advisor**
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**Dean**
Candace Croft
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**Phase II – Technical Courses and Clinical Experience**

**Phase II Notes**

- Phase II must be completed at full-time status.
- Students will complete Phase II in approximately 12 months.
- Before students can begin Phase II they must complete the [Phase II admissions process](#) by the end of the spring semester that precedes the fall start of Phase II.
- Students must earn a grade of “C” or higher in all of their Phase II coursework. Less than a “C” is considered failing.

  Students may not progress with other coursework until a failed course is retaken.

  Students may only fail one Phase II course; failing more than one course will be grounds for dismissal from the program.

**Clinical Experience Requirements**

Clinical experiences are completed off-campus. Sites may be local, in-state, or out-of-state. Students are responsible for their own transportation to and from clinical education, as well as any associated housing costs. Students will not be allowed to select specific sites for clinical education, but may make requests for special needs or geographical locations.

Participation in clinical education requires:

1. Criminal background, sex offender, and adult/dependent abuse background checks are required prior to the first day of Phase II courses. Failing a background check will result in dismissal from the program.

2. Students are required to complete CPR, HIPAA, First Aid, Mandatory Reporting, OSHA training prior to the first day of clinical course work. This training is part of Phase II courses.

3. Getting a physical exam and updated immunizations, including current hepatitis B series (unless signs waiver), MMR, and current tetanus. Polio and meningitis are also recommended. Current TB test results are required. This must be recorded on the Hawkeye Community College Student Health and Immunization Record form prior to the first day of Phase II courses.

A dress code for clinical education exists and may be dictated by the clinical site.

<table>
<thead>
<tr>
<th>Semester 3 – Fall</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PTA101 Introduction to PTA</td>
<td>2</td>
</tr>
<tr>
<td>PTA110 Fundamentals for PTA</td>
<td>3</td>
</tr>
<tr>
<td>PTA120 Kinesiology</td>
<td>3</td>
</tr>
<tr>
<td>PTA150 Pathophysiology</td>
<td>3</td>
</tr>
<tr>
<td>PTA194 Therapeutic Agents I</td>
<td>3</td>
</tr>
<tr>
<td>PTA211 Musculoskeletal I</td>
<td>3</td>
</tr>
<tr>
<td>PTA310 PTA Clinical I</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Credits 18**

<table>
<thead>
<tr>
<th>Semester 4 – Spring</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PTA113 Fundamentals for PTA II</td>
<td>3</td>
</tr>
<tr>
<td>PTA195 Therapeutic Agents II</td>
<td>3</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
</tr>
<tr>
<td>------------</td>
<td>------------------------------------</td>
</tr>
<tr>
<td>PTA212</td>
<td>Musculoskeletal II</td>
</tr>
<tr>
<td>PTA231</td>
<td>Therapeutic Exercise for PTA</td>
</tr>
<tr>
<td>PTA248</td>
<td>PTA Neurology</td>
</tr>
<tr>
<td>PTA285</td>
<td>PTA Professional Issues</td>
</tr>
<tr>
<td>PTA311</td>
<td>PTA Clinical II *</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits 18</strong></td>
</tr>
</tbody>
</table>

* Clinical will begin one week prior to the start of Spring Semester.

### Semester 5 – Summer

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTA415</td>
<td>PTA Clinical III</td>
<td>5</td>
</tr>
<tr>
<td>PTA416</td>
<td>PTA Clinical IV</td>
<td>5</td>
</tr>
</tbody>
</table>

**Total Credits 10**
Practical Nursing

The Practical Nursing program prepares students for entry-level practice as licensed practical nurses. Approximately one-half of the instructional time is spent in actual clinical practice in hospitals and nursing homes under the supervision of nursing instructors.

Students are trained in nursing fundamentals, growth and development, pharmacology, anatomy and physiology, medical surgical nursing including gerontology, maternal-child nursing, and mental health concepts.

Graduates are eligible to take the national and state/regional examinations for licensure, which is required to practice in any state. A social security number is required in order to take exams and apply for licensure.

Continuing Education Ladder Concept of Nursing Education

Qualified graduates are eligible to progress to the Associate Degree Nursing program.

Accreditation

Hawkeye's Practical Nursing program is approved by the Iowa Board of Nursing and the Commission on Institutes of the North Central Association.
Practical Nursing Careers
Graduates often work in settings such as hospitals, long-term care facilities, clinics, and physicians' offices.

Placement
Starting Wages: $31,000 - $37,000 per year*

Iowa Workforce Development forecasts more than 330 openings each year for licensed practical nurses through 2020.

Licensed practical nursing is one of the top occupations in Iowa with the most job openings.

*Source: Iowa Workforce Development

Employers

<table>
<thead>
<tr>
<th>Allen Memorial Hospital</th>
<th>Waterloo, IA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cedar Falls Lutheran Home</td>
<td>Cedar Falls, IA</td>
</tr>
<tr>
<td>Waverly Health Center</td>
<td>Waverly, IA</td>
</tr>
<tr>
<td>Western Home Communities</td>
<td>Cedar Falls, IA</td>
</tr>
<tr>
<td>Wheaton Franciscan Hospitals</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td></td>
<td>Cedar Falls, IA</td>
</tr>
</tbody>
</table>

Program Contacts

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Dean
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Practical Nursing Admission Requirements

Admission into the Practical Nursing Program is a three step process. Applicants must complete each step for full admittance into the program.

Step 1 – Basic Skill Competencies Requirements

Option 1
Score at least the following scores on any combination of the below assessment options:

<table>
<thead>
<tr>
<th>ACT sub scores</th>
<th>COMPASS scores</th>
<th>ASSET scores</th>
<th>ACCUPLACER scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>19 - Reading</td>
<td>82 - Reading</td>
<td>38 - Reading</td>
<td>90 - Reading</td>
</tr>
<tr>
<td>19 - English</td>
<td>65 - Writing</td>
<td>40 - Writing</td>
<td>98 - Sentence Skills</td>
</tr>
<tr>
<td>19 - Math</td>
<td>42 - Algebra</td>
<td>40 - Elementary Algebra</td>
<td>103 - Arithmetic OR</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>97 - Elementary Algebra</td>
</tr>
</tbody>
</table>

AND completion of one year of high school biology or equivalent with a grade of "C" or higher in each semester.

Applicants can take the ACT assessment or the COMPASS assessment at Hawkeye. Pre-registration is required.

Option 2
Complete all of the following college success courses with a "C" grade or higher at Hawkeye Community College or comparable courses at another accredited college:

- ENG061 College Preparatory Writing II
- RDG040 College Preparatory Reading III
- MAT063 Elementary Algebra
- BIO042 Prep. Science for Health Careers

Option 3
Any combination of the above fulfilling the basic skills requirements of algebra, reading, writing, and biology.

Step 2 – Complete TEAS Test

Complete the Test for Essential Academic Skills (TEAS) with a composite score of 64% or higher.

Applicants are not allowed to retake the TEAS once a minimum composite score of 64% is achieved.

A fee is assessed at Hawkeye for the TEAS test.

Step 3 – Practical Nursing Point System

Upon completion of Steps 1 and 2, applicants are placed on the Eligible for Acceptance list. Applicants will be prioritized on the list based on the total number of points awarded. Applicants with the highest points will be given priority admission to the program.
<table>
<thead>
<tr>
<th>Practical Nursing Point System Criteria</th>
<th>Points Awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT Composite of 22 or higher</td>
<td>2</td>
</tr>
<tr>
<td>ACT Composite of 19-21</td>
<td>1</td>
</tr>
<tr>
<td>High School Cumulative GPA 3.50 or higher</td>
<td>3</td>
</tr>
<tr>
<td>High School Cumulative GPA 3.00 – 3.49</td>
<td>2</td>
</tr>
<tr>
<td>High School Cumulative GPA 2.50 – 2.99, GED or HiSET test passing rate, High School Cumulative GPA from a grading scale other than 4.00</td>
<td>1</td>
</tr>
<tr>
<td>High School Cumulative GPA 2.49 or below</td>
<td>0</td>
</tr>
<tr>
<td>Master of Arts or Master of Science Degree OR</td>
<td>3</td>
</tr>
<tr>
<td>Bachelor of Arts or Bachelor of Science Degree OR</td>
<td>2</td>
</tr>
<tr>
<td>Associate in Arts or Associate in Science Degree</td>
<td>1</td>
</tr>
</tbody>
</table>

Complete ALL of the following general education courses:
- BIO159 Fundamentals of Anatomy & Physiology OR BIO168 Human Anatomy & Physiology I AND BIO173 Human Anatomy & Physiology II
- PSY111 Introduction to Psychology
- COM781 Written Comm. in the Workplace OR ENG105 Composition I

Cumulative GPA of 3.50 or higher for above general education courses | 3 |
Cumulative GPA between 3.00 – 3.49 for above general education courses | 2 |
AND, if applicant has never repeated any of the above general education courses | 1 |

Complete both of the following courses with a grade of “C” or higher and has not repeated either course:
- PNN270 Intro. to Nutrition OR BIO151 Nutrition
  AND
- PNN343 Nursing Perspectives Through the Lifespan OR PSY121 Developmental Psychology

Admissions Process
1. Apply for admission.

2. Completed applicant files (we have your application, transcripts, and test scores) will be processed as follows:
   a. Applicants meeting the program’s admission requirements will be sent an admissions inactivation letter.
   b. Applicants enrolled in coursework to complete Option II or combination of I and II, in Step 1 will become candidates.
   c. Upon completion of Step 1 and Step 2, applicants will be placed on the Eligible for Acceptance list. Placement on the list is determined by the highest point total earned from the Nursing criteria.

3. We accept approximately 64 applicants each Fall and Spring Semester.

4. If necessary, alternates will be contacted to fill unconfirmed positions in the program. Alternates will be given priority for the next term.

Hawkeye’s Equal Opportunity Statement
Practical Nursing Courses

Award: Diploma
Program Start: Fall, Spring
Enrollment Status: Full-time or part-time

The Practical Nursing program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

Required Background Screenings to Participate in Clinicals
As a student in a health program at Hawkeye Community College you will be required to complete the following background screenings to participate in clinicals:

- a criminal background check,
- sex offender registry,
- child abuse registry, and
- dependent adult registry.

The outcome could possibly affect your opportunities to participate in the clinical setting.

Program Notes

- General education courses, marked as gen ed \textit{GEN ED}, can be completed during any semester and are recommended to be completed before full admittance into the program.
- You must be CPR certified and have a health physical on file at Hawkeye prior to the first day of clinical course work.
- You must achieve a minimum "C" grade in all courses required to complete the program.

<table>
<thead>
<tr>
<th>Semester 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO159</td>
<td>Fundamentals of Anatomy and Physiology -OR-</td>
</tr>
<tr>
<td>BIO168</td>
<td>Human Anatomy and Physiology I w/Lab -AND-</td>
</tr>
<tr>
<td>BIO173</td>
<td>Human Anatomy and Physiology II w/Lab</td>
</tr>
<tr>
<td>PNN103</td>
<td>Nursing Calculations</td>
</tr>
<tr>
<td>PNN132</td>
<td>Nursing Fundamentals I -OR-</td>
</tr>
<tr>
<td>PNN100</td>
<td>Nursing Assistant</td>
</tr>
<tr>
<td>PNN133</td>
<td>Nursing Fundamentals II</td>
</tr>
<tr>
<td>PNN161</td>
<td>Introduction to Client Care</td>
</tr>
<tr>
<td>PNN270</td>
<td>Introduction to Nutrition</td>
</tr>
<tr>
<td>PSY111</td>
<td>Introduction to Psychology</td>
</tr>
</tbody>
</table>
### Semester 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM781</td>
<td>Written Communication in the Workplace -OR-</td>
<td>3</td>
</tr>
<tr>
<td>GEN ED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENG105</td>
<td>Composition I</td>
<td>3</td>
</tr>
<tr>
<td>PNN541</td>
<td>Medical Surgical Nursing A</td>
<td>5</td>
</tr>
<tr>
<td>PNN542</td>
<td>Medical Surgical Nursing B</td>
<td>5</td>
</tr>
<tr>
<td>PNN543</td>
<td>Foundations of Clinical Practices</td>
<td>3</td>
</tr>
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</table>

**Total Credits 17**

### Semester 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PNN311</td>
<td>PN Issues and Trends</td>
<td>1</td>
</tr>
<tr>
<td>PNN343</td>
<td>Nursing Perspectives Through the Lifespan</td>
<td>3</td>
</tr>
<tr>
<td>PNN401</td>
<td>Mental Health Nursing</td>
<td>1</td>
</tr>
<tr>
<td>PNN431</td>
<td>Maternal Child Nursing I</td>
<td>2</td>
</tr>
<tr>
<td>PNN722</td>
<td>Fundamentals of Nursing Clinical</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total Credits 16**

**Total Credits 9**
Respiratory Care

The Respiratory Care program prepares students for employment in the diagnosis and treatment of patients with deficiencies and abnormalities associated with the cardiopulmonary system.

Duties may include electrocardiograms, arterial blood gases, nebulizer treatments, ventilator management, oxygen therapy, pulmonary function tests, and sleep studies.

Students learn through classroom instruction, laboratory experience, simulations, supervised clinical experience at local and regional hospitals and other health care settings, and an eight-week practicum (internship) at a healthcare facility.

Graduates are eligible to take the national examination for licensure, which is required to practice in any state. A social security number is required in order to take exams and apply for licensure.

Accreditation

The Respiratory Care program, Associate of Applied Science, is accredited by the Commission on Accreditation for Respiratory Care.

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Transfer Information

Students in the Respiratory Care program interested in continuing their education should visit with a program advisor.
Respiratory Care Careers

Graduates find employment in a variety of settings including:

• acute care hospitals
• sub-acute and long-term care facilities
• pulmonary function labs
• sleep centers
• home care

Placement
Starting Wages: $40,000 - $48,000 per year*

Respiratory therapist is one of the fastest growing occupations in Iowa.

*Source: Iowa Workforce Development

Employers

<table>
<thead>
<tr>
<th>Employer</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allen Memorial Hospital</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>American Home Patient</td>
<td>All locations in Iowa &amp; Wisconsin</td>
</tr>
<tr>
<td>Harmony House Health Care Center</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>Mayo Clinic</td>
<td>Rochester, MN</td>
</tr>
<tr>
<td>Mercy Medical Center - North Iowa</td>
<td>Mason City, IA</td>
</tr>
<tr>
<td>Midwest Sleep Services</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>Sumner Memorial Hospital</td>
<td>Sumner, IA</td>
</tr>
<tr>
<td>University of Iowa Hospital and Clinics</td>
<td>Iowa City, IA</td>
</tr>
<tr>
<td>Wheaton Franciscan Hospitals</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td></td>
<td>Cedar Falls, IA</td>
</tr>
</tbody>
</table>

Program Contacts

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Respiratory Care Admission Requirements

Basic Skill Competencies Requirements

Option 1
Score at least the following scores on any combination of the below assessment options:

<table>
<thead>
<tr>
<th>ACT sub scores</th>
<th>COMPASS scores</th>
<th>ASSET scores</th>
<th>ACCUPLACER scores</th>
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<tr>
<td>19 - Math</td>
<td>42 - Algebra</td>
<td>40 - Elementary Algebra</td>
<td>103 - Arithmetic OR</td>
</tr>
</tbody>
</table>

Applicants can take the ACT assessment or the COMPASS assessment at Hawkeye. Pre-registration is required.

Option 2
Complete all of the following college success courses with a "C" grade or higher at Hawkeye Community College or comparable courses at another accredited college:

- ENG061 College Preparatory Writing II
- RDG040 College Preparatory Reading III
- MAT063 Elementary Algebra

Option 3
Any combination of the above fulfilling the basic skills requirements of algebra, reading, and writing.

Admissions Process

1. Apply for admission.

2. Completed applicant files (we have your application, transcripts, and test scores) will be processed as follows:
   a. Applicants meeting the program’s admission requirements will be sent an admissions inactivation letter.
   b. Applicants meeting all admission requirements will be accepted and tracked while taking the first and second semester prerequisite courses. Upon completion of this coursework with the required cumulative GPA, students will be able to register for RCP courses.

3. We accept approximately 30 students and 10 alternates each Fall Semester. The program accepts approximately 20 students each summer to the RCP professional core courses. Applicants will be accepted based on the date their completed applicant file. If many students share the same date for completing their applicant files, the application date will be used to prioritize their acceptance.

4. If necessary, alternates will be contacted to fill unconfirmed positions in the program. Alternates will be given priority for the next term.
Respiratory Care Courses

Award: Associate of Applied Science (AAS)
Program Start: Fall only

The Respiratory Care program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

Required Background Screenings to Participate in Clinicals
As a student in a health program at Hawkeye Community College you will be required to complete:

- a criminal background check,
- sex offender registry,
- child abuse registry, and
- dependent adult registry.

The outcome could possibly affect your opportunities to participate in the clinical setting.

Program Notes

- Students are not eligible for the Iowa Vocational Technical Tuition Grant while taking the prerequisite courses.
- Students must complete all prerequisite courses with a 2.75 cumulative GPA prior to registering for RCP courses.
- Students must achieve a minimum "C" grade in all courses required to complete the program.

<table>
<thead>
<tr>
<th>Prerequisites – Fall</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO168 Human Anatomy and Physiology I w/Lab</td>
<td>4</td>
</tr>
<tr>
<td>CHM122 Introduction to General Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CSC110 Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>HSC113 Medical Terminology for Health Sciences</td>
<td>2</td>
</tr>
<tr>
<td>MAT110 Math for Liberal Arts</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Prerequisites – Spring</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO173 Human Anatomy and Physiology II w/Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIO185 Microbiology w/lab</td>
<td>3</td>
</tr>
<tr>
<td>ENG105 Composition I</td>
<td>3</td>
</tr>
<tr>
<td>PSY111 Introduction to Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>
### Semester 1 – Summer

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCP100</td>
<td>Introduction to Respiratory Care</td>
<td>3</td>
</tr>
<tr>
<td>RCP260</td>
<td>Airway Maintenance Procedures</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total Credits 7**

### Semester 2 – Fall

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCP315</td>
<td>Cardiopulmonary Therapeutics</td>
<td>4</td>
</tr>
<tr>
<td>RCP350</td>
<td>Pulmonary Pathology</td>
<td>3</td>
</tr>
<tr>
<td>RCP561</td>
<td>Intro to Ventilator Support</td>
<td>3</td>
</tr>
<tr>
<td>RCP600</td>
<td>Neonatal/Pediatric Respiratory</td>
<td>3</td>
</tr>
<tr>
<td>RCP680</td>
<td>Clinical Respiratory Care</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total Credits 17**

### Semester 3 – Spring

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCP410</td>
<td>Cardiopulmonary Diagnostics</td>
<td>3</td>
</tr>
<tr>
<td>RCP565</td>
<td>Intensive Respiratory Care</td>
<td>3</td>
</tr>
<tr>
<td>RCP690</td>
<td>Clinical Intensive Care</td>
<td>8</td>
</tr>
<tr>
<td>RCP875</td>
<td>Respiratory Care Applications</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total Credits 16**

### Semester 4 – Summer

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCP900</td>
<td>Clinical Preceptor</td>
<td>4</td>
</tr>
<tr>
<td>RCP910</td>
<td>Respiratory Care RRT Review</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total Credits 6**

**View Course Descriptions**

---

Total Credits: 16

---
Alternative Energy Technology

The Alternative Energy Technology program prepares students to work in the many career fields related to energy analysis, conservation, production, installation, maintenance, and use.

The program provides a good foundation essential to many maintenance and service occupations. Students will utilize electrical and electronic controls to monitor energy loss and improve system energy efficiency. They receive hands-on training in solar, wind, and fluid power and develop knowledge of power generation and delivery systems.

Students will possess the fundamental knowledge of electrical, mechanical, and electromechanical energy consuming and producing systems.

Industry

Alternative or renewable energy technologies produce sustainable, clean energy from sources such as the sun, wind, and water. In 2012, renewable sources of energy accounted for about 12% of total electricity generation in the United States. The growth of new energy technologies will strengthen our nation’s energy security, improve environmental quality, and contribute to a strong energy economy.

*Source: U.S. Department of Energy, Energy Information Administration

Transfer Information

Students in the Alternative Energy Technology program interested in continuing their education should contact a program advisor.
Alternative Energy Technology Careers

Graduates find employment working as electrical energy technicians, energy auditors, wind farm technicians, photovoltaic and wind system installers, and industrial maintenance workers.

Graduates may be employed by public utility companies, alternative energy system manufacturers, energy management companies, and heating and cooling contractors.

Placement
Starting Wages: $31,000 - $42,500 per year*

As the energy industry shifts, a large workforce will be needed in the area of alternative energy technology.

*Source: Iowa Workforce Development

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Ray Beets
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319-296-4042
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Alternative Energy Technology Admission Requirements

Basic Skill Competencies Requirements

Option 1
Score at least the following scores on any combination of the below assessment options:

<table>
<thead>
<tr>
<th>ACT sub scores</th>
<th>COMPASS scores</th>
<th>ASSET scores</th>
<th>ACCUPLACER scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>14 - Math</td>
<td>24 - Pre-Algebra</td>
<td>38 - Numerical</td>
<td>40 - Arithmetic</td>
</tr>
<tr>
<td>19 - Reading</td>
<td>82 - Reading</td>
<td>38 - Reading</td>
<td>90 - Reading</td>
</tr>
<tr>
<td>19 - English</td>
<td>65 - Writing</td>
<td>40 - Writing</td>
<td>98 - Sentence Skills</td>
</tr>
</tbody>
</table>

Applicants can take the ACT assessment or the COMPASS assessment at Hawkeye. Pre-registration is required.

Option 2
Complete all of the following college success courses with a "C" grade or higher at Hawkeye Community College or comparable courses at another accredited college:

- ENG-061 College Preparatory Writing II
- RDG-040 College Preparatory Reading III
- MAT-045 Fundamentals of Math

Option 3
Any combination of Option 1 and Option 2 fulfilling the basic skills requirements of algebra, reading, and writing.

Admissions Process

1. Apply for admission.

2. Completed applicant files (we have your application, transcripts, and test scores) will be processed as follows:
   a. Applicants not meeting the program's admission requirements will be sent an Admissions Inactivation Letter.
   b. Applicants meeting all admission requirements will be accepted.

3. We accept approximately 20 students and 20 alternates. Applicants will be accepted based upon the initial date of their completed applicant file. If many students share the same date for completing their applicant files; the application date, if needed, will be used to prioritize their acceptance.

4. If necessary, alternates will be contacted to fill unconfirmed positions in the program. Alternates will be given priority for the next term.

Hawkeye's Equal Opportunity Statement
## Alternative Energy Technology Courses

**Award:** Associate of Applied Science (AAS)  
**Program Start:** Fall only  
**Enrollment Status:** Full-time or part-time

The Alternative Energy Technology program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

### Semester 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CON102</td>
<td>Introduction to Residential Construction</td>
<td>2</td>
</tr>
<tr>
<td>CON302</td>
<td>Building Science I</td>
<td>1</td>
</tr>
<tr>
<td>ELT139</td>
<td>Electrical Systems</td>
<td>3</td>
</tr>
<tr>
<td>ELT149</td>
<td>Advanced Electrical Systems</td>
<td>2</td>
</tr>
<tr>
<td>ENV170</td>
<td>Photo-Voltaics and Hybrid Electrical Systems</td>
<td>2</td>
</tr>
<tr>
<td>IND111</td>
<td>Industrial Safety Mechanical Systems</td>
<td>1</td>
</tr>
<tr>
<td>IND181</td>
<td>Heating, Ventilating, and Air Conditioning Systems</td>
<td>2</td>
</tr>
<tr>
<td>MAT772</td>
<td>Applied Math -OR-</td>
<td>3</td>
</tr>
<tr>
<td>MAT110</td>
<td>Math for Liberal Arts -OR-</td>
<td>3</td>
</tr>
<tr>
<td>MAT122</td>
<td>College Algebra -OR-</td>
<td>5</td>
</tr>
<tr>
<td>MAT128</td>
<td>Precalculus -OR-</td>
<td>4</td>
</tr>
<tr>
<td>MAT778</td>
<td>Applied Geometry/ Trigonometry</td>
<td>3</td>
</tr>
</tbody>
</table>

### Semester 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM781</td>
<td>Written Communication in the Workplace -OR-</td>
<td>3</td>
</tr>
<tr>
<td>ENG105</td>
<td>Composition I</td>
<td>3</td>
</tr>
<tr>
<td>EGT140</td>
<td>Fluid Power</td>
<td>2</td>
</tr>
<tr>
<td>EGT420</td>
<td>PLTW - Digital Electronics</td>
<td>3</td>
</tr>
<tr>
<td>ELE194</td>
<td>Power Generators &amp; Transformers</td>
<td>2</td>
</tr>
<tr>
<td>ELT215</td>
<td>Motors and Controls</td>
<td>2</td>
</tr>
<tr>
<td>ELT234</td>
<td>PLC Programming</td>
<td>2</td>
</tr>
<tr>
<td>ENV185</td>
<td>Photovoltaic Solar Systems</td>
<td>2</td>
</tr>
</tbody>
</table>

View Course Descriptions  

Total Credits 16
### Semester 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGT144</td>
<td>Fluid Power Applications</td>
<td>2</td>
</tr>
<tr>
<td>ELT156</td>
<td>Industrial Electronics</td>
<td>5</td>
</tr>
<tr>
<td>ELT240</td>
<td>PLCs II</td>
<td>2</td>
</tr>
<tr>
<td>ELT802</td>
<td>Electronics Design Project I</td>
<td>1</td>
</tr>
<tr>
<td>HCR126</td>
<td>Solar Thermal Installation</td>
<td>2</td>
</tr>
<tr>
<td>PSY102</td>
<td>Human and Work Relations -OR-</td>
<td>3</td>
</tr>
<tr>
<td>PSY111</td>
<td>Introduction to Psychology -OR-</td>
<td>3</td>
</tr>
<tr>
<td>SOC110</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>WTT103</td>
<td>Wind Turbine Fundamentals</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total Credits 16**

### Semester 4

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGT152</td>
<td>Advanced Fluid Power and Servo Systems</td>
<td>2</td>
</tr>
<tr>
<td>ELT701</td>
<td>Embedded Processors</td>
<td>3</td>
</tr>
<tr>
<td>ELT736</td>
<td>Instrumentation and Control</td>
<td>2</td>
</tr>
<tr>
<td>ELT803</td>
<td>Electronics Design Project II</td>
<td>1</td>
</tr>
<tr>
<td>ENV155</td>
<td>Residential Energy Auditing</td>
<td>4</td>
</tr>
<tr>
<td>SPC101</td>
<td>Fundamentals of Oral Communication</td>
<td>3</td>
</tr>
<tr>
<td>WTT144</td>
<td>Wind Turbine System Controls</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits 17**
Civil and Construction Engineering Technology

The Civil and Construction Engineering Technology program prepares students for entry-level work with civil engineers, contractors, architects, and government agencies at the city, county, and state levels as well as the public. Civil engineering technicians apply the theories and principles of civil engineering technology and surveying technology in planning, designing, and overseeing construction and maintenance of structures and facilities. They do hands-on work and use high-tech equipment under the direction of engineering staff or physical scientists.

Transfer Information

Hawkeye's Industrial and Engineering Technology Department has a block articulation agreement with the University of Northern Iowa as well as Mount Mercy University to transfer general education and technical credits. Many graduates have transferred substantial credits into the Construction Management program at UNI and the Civil Engineering program at Iowa State University. For more information, contact a program advisor.
Civil and Construction Engineering Technology Careers

Graduates find employment working as CAD drafters, designers, environmental technicians, surveyors, construction inspectors, material testing technicians, estimators, and supervisors in public works and private sector jobs.

Placement
Starting Wages: $34,500 - $49,000 per year*

*Source: Iowa Workforce Development

Employers

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black Hawk County Engineer's Office</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>City of Waterloo Engineer's Office</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>EarthTech/AECOM</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>Fot Infrastructure and Environment LLC</td>
<td>Cedar Rapids, IA Des Moines, IA</td>
</tr>
<tr>
<td>Iowa Department of Transportation</td>
<td>Ames, IA</td>
</tr>
<tr>
<td>Peterson Contractors, Inc.</td>
<td>Reinbeck, IA</td>
</tr>
<tr>
<td>Terracon Consultants</td>
<td>Cedar Falls, IA Cedar Rapids, IA</td>
</tr>
</tbody>
</table>

Program Contacts

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Pre-Technical Advisor
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Hawkeye Center
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Email me

Dean
Ray Beets
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Civil and Construction Engineering Technology Admission Requirements

Basic Skill Competencies Requirements

Option 1

Score at least the following scores on any combination of the below assessment options:

<table>
<thead>
<tr>
<th>ACT sub scores</th>
<th>COMPASS scores</th>
<th>ASSET scores</th>
<th>ACCUPLACER scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>19 - Math</td>
<td>42 - Algebra</td>
<td>38 - Reading</td>
<td>90 - Reading</td>
</tr>
<tr>
<td>19 - Reading</td>
<td>82 - Reading</td>
<td>40 - Writing</td>
<td>98 - Sentence Skills</td>
</tr>
<tr>
<td>19 - English</td>
<td>65 - Writing</td>
<td>40 - Elementary Algebra</td>
<td>103 - Arithmetic OR</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>97 - Elementary Algebra</td>
</tr>
</tbody>
</table>

Applicants can take the [ACT assessment](#) or the [COMPASS assessment](#) at Hawkeye. Pre-registration is required.

Option 2

Complete all of the following college success courses with a "C" grade or higher at Hawkeye Community College or comparable courses at another accredited college:

- ENG061 College Preparatory Writing II
- RDG040 College Preparatory Reading III
- MAT063 Elementary Algebra

Option 3

Any combination of Option 1 and Option 2 fulfilling the basic skills requirements of algebra, reading, and writing.

Admissions Process

1. [Apply for admission](#).

2. Completed applicant files (we have your application, transcripts, and test scores) will be processed as follows:
   a. Applicants who do not meet the program's admission requirements will be sent an admissions inactivation letter.
   b. Applicants meeting all admission requirements will be accepted.

3. We accept approximately 24 students and 20 alternates each Fall Semester. Applicants will be accepted based on the date their completed applicant file. If many students share the same date for completing their applicant files, the application date will be used to prioritize their acceptance.

4. If necessary, alternates will be contacted to fill unconfirmed positions in the program. Alternates will be given priority for the next term.
Civil and Construction Engineering Technology Courses

Award: Associate of Applied Science (AAS)
Program Start: Fall only
Enrollment Status: Full-time or part-time

The Civil and Construction Engineering Technology program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

<table>
<thead>
<tr>
<th>Semester 1</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAD105</td>
<td>CAD I</td>
<td>2</td>
</tr>
<tr>
<td>CET122</td>
<td>Construction Drawings and Contracts</td>
<td>2</td>
</tr>
<tr>
<td>DRF113</td>
<td>Fundamentals of Technical Drafting</td>
<td>3</td>
</tr>
<tr>
<td>EGT460</td>
<td>Civil Engineering and Architecture</td>
<td>3</td>
</tr>
<tr>
<td>ELT192</td>
<td>Introduction to EET Computer Science</td>
<td>3</td>
</tr>
<tr>
<td>MAT744</td>
<td>Technical Math -OR-</td>
<td>4</td>
</tr>
<tr>
<td>MAT122</td>
<td>College Algebra</td>
<td>5</td>
</tr>
<tr>
<td>View Course Descriptions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Credits</td>
<td>17</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester 2</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CET142</td>
<td>PC Concrete, HMA, and Testing</td>
<td>3</td>
</tr>
<tr>
<td>CET160</td>
<td>Surveying</td>
<td>3</td>
</tr>
<tr>
<td>CET182</td>
<td>Structural Detailing Using CAD</td>
<td>2</td>
</tr>
<tr>
<td>CET253</td>
<td>Fundamentals of Construction Estimating</td>
<td>3</td>
</tr>
<tr>
<td>COM781</td>
<td>Written Communication in the Workplace -OR-</td>
<td>3</td>
</tr>
<tr>
<td>ENG105</td>
<td>Composition I</td>
<td>3</td>
</tr>
<tr>
<td>MAT747</td>
<td>Technical Math II -OR-</td>
<td>4</td>
</tr>
<tr>
<td>MAT128</td>
<td>Precalculus -OR-</td>
<td>4</td>
</tr>
<tr>
<td>MAT134</td>
<td>Trigonometry and Analytic Geometry</td>
<td>3</td>
</tr>
</tbody>
</table>

Program Contacts

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### Semester 3

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CET213</td>
<td>Route Surveying/Roadway Design</td>
<td>3</td>
</tr>
<tr>
<td>CET223</td>
<td>Soils, Testing and Foundations</td>
<td>3</td>
</tr>
<tr>
<td>CON266</td>
<td>Construction Safety</td>
<td>3</td>
</tr>
<tr>
<td>EGT243</td>
<td>Statics and Strength of Materials</td>
<td>3</td>
</tr>
<tr>
<td>PHY162</td>
<td>College Physics I</td>
<td>4</td>
</tr>
<tr>
<td>PSY102</td>
<td>Human and Work Relations -OR-</td>
<td>3</td>
</tr>
<tr>
<td>PSY111</td>
<td>Introduction to Psychology -OR-</td>
<td>3</td>
</tr>
<tr>
<td>SOC110</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits 18**

### Semester 4

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CET133</td>
<td>Construction Methods and Resources</td>
<td>3</td>
</tr>
<tr>
<td>CET233</td>
<td>Fundamentals of GPS and GIS</td>
<td>3</td>
</tr>
<tr>
<td>CET256</td>
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<tr>
<td>CET262</td>
<td>Environmental Technology</td>
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<tr>
<td>CET285</td>
<td>Structural Steel/Reinforced Concrete Design</td>
<td>3</td>
</tr>
<tr>
<td>SPC101</td>
<td>Fundamentals of Oral Communication</td>
<td>3</td>
</tr>
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</table>

**Total Credits 19**

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Maintained by Public Relations and Marketing
CNC Machining and Tool-Making Technology

The CNC Machining and Tool-Making Technology program provides students with the entry-level skills to become a general machinist, a CNC operator or programmer, or a tool-maker. During the second year, students gain hand-on experience in tool-making, die building, mold making, jig and fixture building, tool room machining, and basic design skills. They are also introduced to manual and coordinate-measuring machine (CMM) inspection. Upon completion of the two-year program, students earn an Associate of Applied Science degree.

During the first year, students have the opportunity to complete various levels of this program to meet our rising local need. They gain experience with basic machining on manual and computer-numerical control (CNC) machines, computer-aided drafting (CAD) and computer-aided machining (CAM) programming, lathes, mills, and electrical-discharges machines (EDM). Students can earn a diploma in CNC Machining Technology, a certificate as a CNC Machine Operator, or a certificate as a CNC Machine Set-Up Specialist.

Evening Program


Once you have earned your certificate, you can continue your studies to earn an associate's degree and bachelor's degree.

Financial Assistance

Financial assistance is available for qualifying students in the CNC Machine Operator program in the evening.

The Hy-Pro Program is a school to work program. Through a forgivable loan, Hy-Pro pays 100% of Hawkeye’s tuition and fees after the completion of each semester. Students in the program will earn their certificate and continue their studies to earn an Associate in Applied Science degree in CNC Machining and
Tool-Making Technology. Upon earning their AAS degree, participants agree to work two years at Hy-Pro to repay the forgivable loan in full.

**Partnerships**
Hawkeye has a partnership with many local area high schools and local businesses through EMC² (Exploring Manufacturing Careers Consortium) to facilitate a school-to-work program.

**Transfer Information**
Hawkeye Community College has a block articulation with the University of Northern Iowa to transfer general education and technical credits. For more information, contact a program advisor.
CNC Machining and Tool-Making Technology Careers

Graduates find employment working in a variety of positions including:

- tool-maker
- CNC machinist
- CNC machine operator
- CNC set-up specialist

Starting Wages: $32,000 - $40,000 per year*

Many graduates in this field work overtime and are not included in the above starting wages.

*Source: As reported by the Industrial and Engineering Technology department.

Employers

<table>
<thead>
<tr>
<th>Company</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black Hawk Engineering</td>
<td>Cedar Falls, IA</td>
</tr>
<tr>
<td>Criterion Inc.</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>Geater Machining and Manufacturing, Co.</td>
<td>Independence, IA</td>
</tr>
<tr>
<td>GMT Corporation</td>
<td>Waverly, IA</td>
</tr>
<tr>
<td>Hawkeye Tool &amp; Die</td>
<td>Jesup, IA</td>
</tr>
<tr>
<td>Iowa Laser Technology</td>
<td>Cedar Falls, IA</td>
</tr>
<tr>
<td>John Deere</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>Viking Pump</td>
<td>Cedar Falls, IA</td>
</tr>
</tbody>
</table>

Program Contacts

Department Secretary
Kendra Wyatt-Koger
Buchanan Hall 103
319-296-4009
Email me

Program Advisors
Keith Siers
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319-296-4436
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Jamie Dettmer
Buchanan Hall 124-C
319-296-2329 ext.1430
Email me

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me
CNC Machining and Tool-Making Technology Admission Requirements

Basic Skill Competencies Requirements

Option 1
Score at least the following scores on any combination of the below assessment options:

<table>
<thead>
<tr>
<th>ACT sub scores</th>
<th>COMPASS scores</th>
<th>ASSET scores</th>
<th>ACCUPLACER scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>14 - Math</td>
<td>24 - Pre-Algebra</td>
<td>38 - Numerical</td>
<td>40 - Arithmetic</td>
</tr>
<tr>
<td>16 - Reading</td>
<td>69 - Reading</td>
<td>34 - Reading</td>
<td>62 - Reading</td>
</tr>
<tr>
<td>13 - English</td>
<td>20 - Writing</td>
<td>31 - Writing</td>
<td>48 - Sentence Skills</td>
</tr>
</tbody>
</table>

Applicants can take the [ACT assessment](#) or the [COMPASS assessment](#) at Hawkeye. Pre-registration is required.

Option 2
Complete all of the following college success courses with a "C" grade or higher at Hawkeye Community College or comparable courses at another accredited college:
1. MAT045 Fundamentals of Math
2. RDG-039 College Preparatory Reading II
3. Review in Writing at Metro Campus

Option 3
Any combination of the above fulfilling the basic skills requirements of algebra, reading, and writing.

Admissions Process

1. [Apply for admission](#).
2. Completed applicant files (we have your application, transcripts, and test scores) will be processed as follows:
   a. Applicants not meeting the program's admission requirements will be sent an admissions inactivation letter.
   b. Applicants who meet the program's admission requirements will be accepted.
3. We accept approximately 60 students and 20 alternates each Fall Semester. Applicants will be accepted based on the date of their completed applicant file. If many students share the same date for completing their applicant file, the application date will be used to prioritize acceptance.
4. If necessary, alternates will be contacted to fill unconfirmed positions in the program. Alternates will be given priority for the next term.

Hawkeye's Equal Opportunity Statement
The AAS degree program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change. Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

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<thead>
<tr>
<th>Semester 1</th>
<th>MAT772 Applied Math -OR- Math Elective</th>
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<tbody>
<tr>
<td></td>
<td>MFG122 Machine Trade Printreading I</td>
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<tr>
<td></td>
<td>MFG308 CNC Programming Theory -OR-</td>
<td>4</td>
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<tr>
<td></td>
<td>MFG157 Intro to CNC Programming I -AND-</td>
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</tr>
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<th>COM781 Written Communication in the Workplace -OR-</th>
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<tr>
<td>MFG321</td>
<td>Computer Aided Machining</td>
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<td>MFG363</td>
<td>Hydraulic Jigs and Fixtures</td>
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<td>EDM Fundamentals</td>
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**Total Credits 9**

### Semester 4

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<td>Basic Diemaking</td>
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<td>CAD Die Design</td>
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<td>Fundamentals of Oral Communication</td>
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<td>WEL402</td>
<td>Tool Steel Welding and Heat Treatment</td>
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**Total Credits 14**

### Semester 5

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<td>Tooling Maintenance and Revision</td>
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<td>MFG461</td>
<td>Plastics Materials</td>
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<td>MFG525</td>
<td>CMM Inspection and SPC</td>
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<td>PSY102</td>
<td>Human and Work Relations -OR-</td>
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**Total Credits 15**

### Math Electives

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<td>MAT134</td>
<td>Trigonometry and Analytic Geometry</td>
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</tr>
<tr>
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<td>Statistics</td>
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<tr>
<td>MAT219</td>
<td>Calculus III</td>
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**Total Credits 15**
CNC Machining Technology Diploma Courses

Award: Diploma
Program Start: Fall only
Enrollment Status: Full-time or part-time

The CNC Machining Technology - Diploma program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

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<td>Math Elective</td>
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View Course Descriptions

<table>
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<td>CNC Programming Theory II</td>
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</tr>
</tbody>
</table>

View Course Descriptions

Total Credits 18

Program Contacts

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Program Advisors
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<td>MAT219 Calculus III</td>
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</tbody>
</table>

**View Course Descriptions**
**CNC Machine Operator Certificate Courses**

**Award:** Certificate  
**Program Start:** Fall only  
**Enrollment Status:** Full-time or part-time

The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

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<tr>
<td>MAT219 Calculus III</td>
<td>4</td>
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</tbody>
</table>

Total Credits 18
CNC Machine Set-Up Specialist Certificate Courses

**Award:** Certificate

**Program Start:** Fall only

**Enrollment Status:** Full-time or part-time

The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

*If you are a current student* your program requirements may be different than those listed for the current catalog year. [View your Program Evaluation](#) to see your specific program requirements and to search and register for classes.

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<td><strong>MAT772</strong> Applied Math -OR-</td>
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<tr>
<td>MAT219</td>
<td>Calculus III</td>
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</table>

View Course Descriptions
Electronics Engineering Technology

The Electronics Engineering Technology program provides students with broad-based knowledge and skills in communications, electronics manufacturing, electronics maintenance, computer and business machine repair, electronics design and development, computer software, and networking.

Electronics engineering technicians work with electronics engineers. Together they design, develop, and manufacture industrial and consumer electronic equipment such as ultrasound, radar, navigational equipment, and computers. They are involved in fabricating, operating, testing, troubleshooting, repairing, and maintaining equipment.

Partnerships
The demand for trained electronics technicians is very strong. Hawkeye has a unique training partnership with John Deere to train and hire individuals.

Transfer Information
Hawkeye Community College has a block articulation with the University of Northern Iowa to transfer general education and technical credits. Other state and private four-year colleges may transfer credits. For more information, contact a program advisor.
Electronics Engineering Technology Careers

Our graduates work in a variety of settings including:

- Medical electronics technician
- Electronics communication technician
- Electronics lab technician
- Manufacturing test technician
- Field service engineer
- Engineering technician
- Computer repair technician
- Computer software technician
- Business machine service technician
- Computer network technician
- Industrial maintenance technician
- Field engineers
- Sales engineers
- Quality assurance technicians

Placement
Starting Wages: $35,500 - $49,500 per year*

*Source: Iowa Workforce Development

Employers

<table>
<thead>
<tr>
<th>Company</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>ConAgra Foods</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>DISTek Integration</td>
<td>Cedar Falls, IA</td>
</tr>
<tr>
<td>John Deere</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>Randstad Technologies</td>
<td>Cedar Rapids, IA</td>
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<tr>
<td>RF Micro Devices</td>
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<td>Rockwell Collins, Inc.</td>
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<td>Skyworks</td>
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<tr>
<td>Target Distribution</td>
<td>Cedar Falls, IA</td>
</tr>
</tbody>
</table>

Program Contacts

Department Secretary
Kendra Wyatt-Koger
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319-296-4009
Email me

Program Advisors
Steve Novak
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319-296-2329 ext.1308
Email me

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me
Electronics Engineering Technology Admission Requirements

Basic Skill Competencies Requirements

Option 1
Score at least the following scores on any combination of the below assessment options:

<table>
<thead>
<tr>
<th>ACT sub scores</th>
<th>COMPASS scores</th>
<th>ASSET scores</th>
<th>ACCUPLACER scores</th>
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<tbody>
<tr>
<td>19 - Math</td>
<td>42 - Algebra</td>
<td>38 - Reading</td>
<td>90 - Reading</td>
</tr>
<tr>
<td>19 - Reading</td>
<td>82 - Reading</td>
<td>40 - Writing</td>
<td>98 - Sentence Skills</td>
</tr>
<tr>
<td>19 - English</td>
<td>65 - Writing</td>
<td>40 - Elementary Algebra</td>
<td>103 - Arithmetic OR 97 - Elementary Algebra</td>
</tr>
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</table>

Applicants can take the ACT assessment or the COMPASS assessment at Hawkeye. Pre-registration is required.

Option 2
Complete all of the following college success courses with a "C" grade or higher at Hawkeye Community College or comparable courses at another accredited college:

- ENG061 College Preparatory Writing II
- RDG040 College Preparatory Reading III
- MAT063 Elementary Algebra

Option 3
Any combination of Option 1 and Option 2 fulfilling the basic skills requirements of algebra, reading, and writing.

Admissions Process

1. Apply for admission.

2. Completed applicant files (we have your application, transcripts, and test scores) will be processed as follows:
   a. Applicants who do not meet the program's admission requirements will be sent an admissions inactivation letter.
   b. Applicants meeting all admission requirements will be accepted.

3. We accept approximately 24 students and 20 alternates each Fall Semester. Applicants will be accepted based on the date their completed applicant file. If many students share the same date for completing their applicant files, the application date will be used to prioritize their acceptance.

4. If necessary, alternates will be contacted to fill unconfirmed positions in the program. Alternates will be given priority for the next term.

Hawkeye's Equal Opportunity Statement
Electronics Engineering Technology Courses

**Award:** Associate of Applied Science (AAS)  
**Program Start:** Fall only  
**Enrollment Status:** Full-time or part-time

The **AAS degree program** requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

*If you are a current student* your program requirements may be different than those listed for the current catalog year. [View your Program Evaluation](#) to see your specific program requirements and to search and register for classes.

### Semester 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
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<td>EGT410</td>
<td>PLTW - Principles of Engineering</td>
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<td>ELT290</td>
<td>DC Electricity</td>
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<td>AC Electricity</td>
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<td>ELT512</td>
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<td>MAT504</td>
<td>Electronics Math I</td>
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<td>SPC101</td>
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*View Course Descriptions*  
Total Credits **20**

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*View Course Descriptions*  
Total Credits **18**

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<td>Semester 4</td>
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<td>PSY102 Human and Work Relations -OR-</td>
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<td>SOC110 Introduction to Sociology</td>
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<td>ELT409 Data Acquisition Systems</td>
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<td>ELT415 Communication Circuits I</td>
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<td>ELT417 Computer Systems</td>
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<td>ELT802 Electronics Design Project I</td>
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<tr>
<td>PHY183 Applied Physics</td>
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<td><strong>View Course Descriptions</strong></td>
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<td>ENG105 Composition I</td>
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<td>ELT416 Communication Circuits II</td>
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<td>ELT701 Embedded Processors</td>
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<td>ELT803 Electronics Design Project II</td>
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<td><strong>View Course Descriptions</strong></td>
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<tr>
<td><strong>Total Credits</strong></td>
<td>19</td>
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</tbody>
</table>

[College Catalog | Next Page >]
The Diploma program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

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<tbody>
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<td>ELT512</td>
<td>Electronic Fabrication</td>
<td>2</td>
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<tr>
<td>MAT504</td>
<td>Electronics Math I</td>
<td>4</td>
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</table>

### Semester 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tr>
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</table>

### Semester 3

<table>
<thead>
<tr>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ELT311</td>
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<td>4</td>
</tr>
<tr>
<td>EGT420</td>
<td>PLTW - Digital Electronics</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits 17

Total Credits 18

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**Program Contacts**

**Department Secretary**  
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**Dean**  
Ray Beets  
Butler Hall 104-A  
319-296-4042  
[Email me](mailto:ray.beets@hawkeye.edu)
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY102</td>
<td>Human and Work Relations -OR-</td>
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<tr>
<td>PSY111</td>
<td>Introduction to Psychology -OR-</td>
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</tr>
<tr>
<td>SOC110</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits 7
# Electronics Engineering Technology – Certificate Courses

**Award:** Certificate  
**Program Start:** Fall only  
**Enrollment Status:** Full-time or part-time

The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

<table>
<thead>
<tr>
<th>Semester 1</th>
<th></th>
<th>Total Credits 17</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGT108</td>
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<td>EGT410</td>
<td>PLTW - Principles of Engineering</td>
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<tr>
<td>ELT290</td>
<td>DC Electricity</td>
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<tr>
<td>ELT291</td>
<td>AC Electricity</td>
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<td>ELT512</td>
<td>Electronic Fabrication</td>
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<tr>
<td>MAT504</td>
<td>Electronics Math I</td>
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</table>

<table>
<thead>
<tr>
<th>Semester 2</th>
<th></th>
<th>Total Credits 18</th>
</tr>
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<tbody>
<tr>
<td>ELT104</td>
<td>Electronics Drafting</td>
<td>3</td>
</tr>
<tr>
<td>ELT320</td>
<td>Electronic Devices</td>
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<tr>
<td>MAT514</td>
<td>Electronics Math II</td>
<td>4</td>
</tr>
</tbody>
</table>

---

**Program Options**

- AAS degree  
- Diploma  
- Certificate  
- Mechanical Emphasis - AAS degree  
- Mechanical Emphasis - Diploma

---

**Program Contacts**

**Department Secretary**  
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Butler Hall 104-A  
319-296-4042  
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---

[College Catalog](#) | [Next Page >](#)
# Electronics Engineering Technology – Mechanical Emphasis Courses

**Award:** Associate of Applied Science (AAS)  
**Program Start:** Fall only  
**Enrollment Status:** Full-time or part-time

The **Mechanical Emphasis - AAS degree program** requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your [Program Evaluation](#) to see your specific program requirements and to search and register for classes.

## Program Options

<table>
<thead>
<tr>
<th>Program Options</th>
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<tbody>
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<td>AAS degree</td>
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<td>Diploma</td>
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<td>Certificate</td>
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<td>Mechanical Emphasis - AAS degree</td>
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### Semester 1

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<th>Course Title</th>
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<tbody>
<tr>
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</tr>
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<td>EGT410</td>
<td>PLTW - Principles of Engineering</td>
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<td>MAT504</td>
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**Total Credits 20**

### Semester 2

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**Total Credits 18**

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<td>ELT802</td>
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<td>IND100</td>
<td>Basic Mechanical Systems</td>
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<td>Human and Work Relations - OR-</td>
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</table>
Electronics Engineering Technology – Mechanical Emphasis – Diploma Courses

Award: Diploma
Program Start: Fall only
Enrollment Status: Full-time or part-time

The Mechanical Emphasis - Diploma program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

<table>
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<tr>
<th>Semester</th>
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<th>Course Title</th>
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<tr>
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<td></td>
<td>EGT410</td>
<td>PLTW - Principles of Engineering</td>
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<td></td>
<td>ELT290</td>
<td>DC Electricity</td>
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<td>ELT291</td>
<td>AC Electricity</td>
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<td></td>
<td>ELT512</td>
<td>Electronic Fabrication</td>
<td>2</td>
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<tr>
<td></td>
<td>MAT504</td>
<td>Electronics Math I</td>
<td>4</td>
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<td><strong>Total Credits 17</strong></td>
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<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>2</td>
<td>ELT104</td>
<td>Electronics Drafting</td>
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<td></td>
<td>ELT320</td>
<td>Electronic Devices</td>
<td>5</td>
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<tr>
<td></td>
<td>ELT321</td>
<td>Operational Amplifiers</td>
<td>3</td>
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<tr>
<td></td>
<td>ELT600</td>
<td>Applied Computer Programming</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MAT514</td>
<td>Electronics Math II</td>
<td>4</td>
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<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>3</td>
<td>EGT140</td>
<td>Fluid Power</td>
</tr>
</tbody>
</table>

Program Options
- AAS degree
- Diploma
- Certificate
- Mechanical Emphasis - AAS degree
- Mechanical Emphasis - Diploma

Program Contacts
- Department Secretary
  Kendra Wyatt-Koger
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- Program Advisors
  Steve Novak
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  Email me
- Greg Steffen
  Bremer Hall 131-B
  319-296-2329 ext.1305
  Email me
- Dean
  Ray Beets
  Butler Hall 104-A
  319-296-4042
  Email me
<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>EGT144</td>
<td>Fluid Power Applications</td>
<td>2</td>
</tr>
<tr>
<td>ELT311</td>
<td>Digital Circuits and Systems -OR-</td>
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<td>EGT420</td>
<td>PLTW - Digital Electronics</td>
<td>3</td>
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<tr>
<td>IND111</td>
<td>Industrial Safety Mechanical Systems</td>
<td>1</td>
</tr>
<tr>
<td>PSY102</td>
<td>Human and Work Relations -OR-</td>
<td>3</td>
</tr>
<tr>
<td>PSY111</td>
<td>Introduction to Psychology -OR-</td>
<td>3</td>
</tr>
<tr>
<td>SOC110</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
</tbody>
</table>

View Course Descriptions

Total Credits 12
Heating and Air Conditioning

The Heating and Air Conditioning program is designed to provide classroom and shop learning experiences. Students gain the knowledge to become proficient in the theory and service of domestic environmental, and comfort conditioning equipment.

Students are trained in basic electricity, electric and electronic controls, fossil fuel heating process and equipment, air cooling and refrigeration theory and equipment, fabrication and installation of sheet metal, heat pump theory and equipment, and electric heat theory and equipment. They also examine the theory of the solar heating process.

Experience and Training
The Heating and Air Conditioning's eight-week employment experience allows students to gain real work experience on-site at an employer. This ensures that the students gain the skills they need to succeed on the job.

Transfer Information
Hawkeye Community College has a block articulation with the University of Northern Iowa to transfer general education and technical credits. For more information, contact a program advisor.
Heating and Air Conditioning Careers

Graduates have a variety of career options including working for dealers, distributors, and commercial business as service technicians and installers.

Starting Wages: $30,500 - $46,500 per year*

Heating, air conditioning, and refrigeration mechanics and installers are some of the fastest-growing occupations in Iowa.

*Source: Iowa Workforce Development

Employers

<table>
<thead>
<tr>
<th>Company</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fereday Heating &amp; Cooling</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>H&amp;H Heating &amp; Air Conditioning</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>Independence Plumbing, Heating, &amp; Cooling</td>
<td>Independence, IA</td>
</tr>
<tr>
<td>Jim Hundley Heating &amp; Air Conditioning</td>
<td>Janesville, IA</td>
</tr>
<tr>
<td>Plumb Tech Inc.</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>Young Plumbing &amp; Heating</td>
<td>Waterloo, IA</td>
</tr>
</tbody>
</table>
Heating and Air Conditioning Admission Requirements

Basic Skill Competencies Requirements

Option 1
Score at least the following scores on any combination of the below assessment options:

<table>
<thead>
<tr>
<th>ACT sub scores</th>
<th>COMPASS scores</th>
<th>ASSET scores</th>
<th>ACCUPLACER scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>14 - Math</td>
<td>24 - Pre-Algebra</td>
<td>38 - Numerical</td>
<td>40 - Arithmetic</td>
</tr>
<tr>
<td>19 - Reading</td>
<td>82 - Reading</td>
<td>34 - Reading</td>
<td>90 - Reading</td>
</tr>
<tr>
<td>16 - English</td>
<td>41 - Writing</td>
<td>35 - Writing</td>
<td>77 - Sentence Skills</td>
</tr>
</tbody>
</table>

Applicants can take the ACT assessment or the COMPASS assessment at Hawkeye. Pre-registration is required.

Option 2
Complete all of the following college success courses with a "C" grade or higher at Hawkeye Community College or comparable courses at another accredited college:

- ENG060 College Preparatory Writing I
- RDG040 College Preparatory Reading III
- MAT045 Fundamentals of Math

Option 3
Any combination of the above fulfilling the basic skills requirements of algebra, reading, and writing.

Admissions Process

1. [Apply for admission](#).

2. Completed applicant files (we have your application, transcripts, and test scores) will be processed as follows:
   a. Applicants meeting the program's admission requirements will be sent an admissions inactivation letter.
   b. Applicants meeting the program's admission requirements will be accepted.

3. We accept approximately 20 students and 20 alternates each Fall Semester. Applicants will be accepted based on the date their completed applicant file. If many students share the same date for completing their applicant files, the application date will be used to prioritize their acceptance.

4. If necessary, alternates will be contacted to fill unconfirmed positions in the program. Alternates will be given priority for the next term.

Hawkeye's Equal Opportunity Statement
Heating and Air Conditioning Courses

**Award:** Diploma  
**Program Start:** Fall only  
**Enrollment Status:** Full-time only

The **Heating and Air Conditioning program** requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

**If you are a current student** your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ELT139  Electrical Systems</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ELT149  Advanced Electrical Systems</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>HCR110  Residential Forced Air Heating System</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>HCR265  Applied Practices I</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>IND181  Heating, Ventilating, and Air Conditioning Systems</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>MAT772  Applied Math -OR- Math Elective</td>
<td>2</td>
</tr>
</tbody>
</table>

Total Credits 17

<table>
<thead>
<tr>
<th>Semester 2</th>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HCR113  Boiler Fundamentals</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>HCR275  Applied Practices II</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>HCR414  Controls for HVACR</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>HCR516  HVACR Systems II</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>HCR852  Operation Strategies</td>
<td>2</td>
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</tbody>
</table>

View Course Descriptions  
Total Credits 19

<table>
<thead>
<tr>
<th>Semester 3</th>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>HCR127  Hydronic Heating Systems</td>
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<tr>
<td></td>
<td>HCR429  HVAC App Controls with Autom Sys</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>HCR602  HVACR Systems III</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>HCR912  HVACR Field Experience</td>
<td>2</td>
</tr>
</tbody>
</table>

View Course Descriptions  
Total Credits 8

---

**Program Contacts**

**Department Secretary**  
Kendra Wyatt-Koger  
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319-296-4009  
Email me

**Program Advisors**  
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Bremer Hall 146-A  
319-296-4009  
Email me

**Dean**  
Ray Beets  
Butler Hall 104-A  
319-296-4042  
Email me
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT110</td>
<td>Math for Liberal Arts</td>
<td>3</td>
</tr>
<tr>
<td>MAT122</td>
<td>College Algebra</td>
<td>5</td>
</tr>
<tr>
<td>MAT128</td>
<td>Precalculus</td>
<td>4</td>
</tr>
<tr>
<td>MAT134</td>
<td>Trigonometry and Analytic Geometry</td>
<td>3</td>
</tr>
<tr>
<td>MAT156</td>
<td>Statistics</td>
<td>3</td>
</tr>
<tr>
<td>MAT210</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MAT216</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MAT219</td>
<td>Calculus III</td>
<td>4</td>
</tr>
</tbody>
</table>

View Course Descriptions
Industrial Automation Technology

The Industrial Automation Technology program prepares students for a career and employment in a broad range of manufacturing, food processing, and business environments. Students gain an in-depth knowledge of electricity and electronics, fluid power, mechanical systems, and manufacturing processes. Students learn through hands-on training utilizing state-of-the-art equipment used in today's business.

Partnerships
The demand for technical maintenance personnel is very high. Hawkeye has a unique training partnership with John Deere to train and hire individuals from this program. Scholarships sponsored by various companies are available to students of the Industrial Automation Technology program through the Financial Aid office.

Transfer Information
Hawkeye Community College has a block articulation with the University of Northern Iowa to transfer general education and technical credits. For more information, contact a program advisor.
Industrial Automation Technology Careers

Entry-level positions in Industrial Automation Technology are available locally, regionally, and nationally. Graduates generally work in maintenance positions and find employment in manufacturing, food processing, and business environments.

Placement
Starting Wages: $31,000 - $50,000 per year*

*Source: Iowa Workforce Development and as reported by the Industrial and Engineering Technology Department.

Employers

<table>
<thead>
<tr>
<th>Company</th>
<th>Location</th>
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<tbody>
<tr>
<td>ConAgra Foods</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>John Deere</td>
<td>Waterloo, IA</td>
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<tr>
<td>Nestle U.S.A.</td>
<td>Waverly, IA</td>
</tr>
<tr>
<td>Rockwell Automation</td>
<td>Cedar Rapids, IA</td>
</tr>
<tr>
<td>Tyson Fresh Meats, Inc.</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>University of Northern Iowa</td>
<td>Cedar Falls, IA</td>
</tr>
</tbody>
</table>

Program Contacts

Department Secretary
Kendra Wyatt-Koger
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Program Advisors
Doug Kruger
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Dan Utley
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319-296-2329 ext.1730
Email me

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me
Industrial Automation Technology Admission Requirements

Basic Skill Competencies Requirements

**Option 1**
Score at least the following scores on any combination of the below assessment options:

<table>
<thead>
<tr>
<th>ACT sub scores</th>
<th>COMPASS scores</th>
<th>ASSET scores</th>
<th>ACCUPLACER scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>14 - Math</td>
<td>24 - Pre-Algebra</td>
<td>38 - Numerical</td>
<td>40 - Arithmetic</td>
</tr>
<tr>
<td>19 - Reading</td>
<td>82 - Reading</td>
<td>38 - Reading</td>
<td>90 - Reading</td>
</tr>
<tr>
<td>19 - English</td>
<td>65 - Writing</td>
<td>40 - Writing</td>
<td>98 - Sentence Skills</td>
</tr>
</tbody>
</table>

Applicants can take the [ACT assessment](#) or the [COMPASS assessment](#) at Hawkeye. Pre-registration is required.

**Option 2**
Complete all of the following college success courses with a "C" grade or higher at Hawkeye Community College or comparable courses at another accredited college:

- ENG-061 College Preparatory Writing II
- RDG-040 College Preparatory Reading III
- MAT-045 Fundamentals of Math

**Option 3**
Any combination of Option 1 and Option 2 fulfilling the basic skills requirements of algebra, reading, and writing.

**Admissions Process**

1. [Apply for admission](#).

2. Completed applicant files (we have your application, transcripts, and test scores) will be processed as follows:
   
   a. Applicants not meeting the program's admission requirements will be sent an Admissions Inactivation Letter.
   
   b. Applicants meeting all admission requirements will be accepted.

3. We accept approximately 20 students and 20 alternates. Applicants will be accepted based upon the initial date of their completed applicant file. If many students share the same date for completing their applicant files; the application date, if needed, will be used to prioritize their acceptance.

4. If necessary, alternates will be contacted to fill unconfirmed positions in the program. Alternates will be given priority for the next term.

[Hawkeye's Equal Opportunity Statement](#)
**Program Options**

- AAS degree
- Diploma
- Industrial Electrical Maintenance - Certificate
- Machine Maintenance - Certificate

---

**Industrial Automation Technology Courses**

**Award:** Associate of Applied Science (AAS)

**Program Start:** Fall only

**Enrollment Status:** Full-time or part-time

The AAS degree program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

**Eight-Week Courses * **
Courses marked with one asterisk (*) meet the first 8-weeks of the semester. Courses marked with two asterisks (**) meet the second 8-weeks of the semester.

<table>
<thead>
<tr>
<th>Semester 1</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>EGT140</td>
<td>Fluid Power *</td>
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<tr>
<td>EGT149</td>
<td>Fluid Power Systems II **</td>
</tr>
<tr>
<td>ELT139</td>
<td>Electrical Systems *</td>
</tr>
<tr>
<td>ELT149</td>
<td>Advanced Electrical Systems **</td>
</tr>
<tr>
<td>ELT192</td>
<td>Introduction to EET Computer Science</td>
</tr>
<tr>
<td>IND100</td>
<td>Basic Mechanical Systems *</td>
</tr>
<tr>
<td>IND111</td>
<td>Industrial Safety Mechanical Systems **</td>
</tr>
<tr>
<td>MAT772</td>
<td>Applied Math -OR- Math Elective</td>
</tr>
</tbody>
</table>

**View Course Descriptions**

Total Credits 19

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<thead>
<tr>
<th>Semester 2</th>
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</thead>
<tbody>
<tr>
<td>CAD105</td>
<td>CAD I</td>
</tr>
<tr>
<td>COM781</td>
<td>Written Communication in the Workplace -OR-</td>
</tr>
<tr>
<td>ENG105</td>
<td>Composition I</td>
</tr>
<tr>
<td>EGT144</td>
<td>Fluid Power Applications *</td>
</tr>
<tr>
<td>ELT215</td>
<td>Motors and Controls *</td>
</tr>
<tr>
<td>ELT234</td>
<td>PLC Programming **</td>
</tr>
<tr>
<td>ELT403</td>
<td>Visual Basic</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Name</td>
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<tr>
<td>WEL339</td>
<td>Electromechanical Maintenance</td>
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**Total Credits 17**

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**Semester 3**

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<th>Credits</th>
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<td>ELT103</td>
<td>Facilities Blueprint Reading *</td>
<td>3</td>
</tr>
<tr>
<td>ELT240</td>
<td>PLCs II</td>
<td>2</td>
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<tr>
<td>ELT590</td>
<td>Semiconductors</td>
<td>5</td>
</tr>
<tr>
<td>ELT736</td>
<td>Instrumentation and Control</td>
<td>2</td>
</tr>
<tr>
<td>PSY102</td>
<td>Human and Work Relations -OR-</td>
<td>3</td>
</tr>
<tr>
<td>PSY111</td>
<td>Introduction to Psychology -OR-</td>
<td>3</td>
</tr>
<tr>
<td>SOC110</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SPC101</td>
<td>Fundamentals of Oral Communication</td>
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**Total Credits 18**

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**Semester 4**

<table>
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<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATR145</td>
<td>Applied Industrial Robotics</td>
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</tr>
<tr>
<td>EGT152</td>
<td>Advanced Fluid Power and Servo Systems</td>
<td>2</td>
</tr>
<tr>
<td>ELT133</td>
<td>Electric Motor Drives</td>
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</tr>
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<td>ELT309</td>
<td>Digital Circuits</td>
<td>3</td>
</tr>
<tr>
<td>ELT610</td>
<td>Microprocessors</td>
<td>2</td>
</tr>
<tr>
<td>MFG193</td>
<td>Machine Shop Processes</td>
<td>3</td>
</tr>
<tr>
<td>MFG514</td>
<td>Machine Maintenance</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total Credits 18**

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**Math Electives**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT110</td>
<td>Math for Liberal Arts</td>
<td>3</td>
</tr>
<tr>
<td>MAT122</td>
<td>College Algebra</td>
<td>5</td>
</tr>
<tr>
<td>MAT128</td>
<td>Precalculus</td>
<td>4</td>
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<tr>
<td>MAT134</td>
<td>Trigonometry and Analytic Geometry</td>
<td>3</td>
</tr>
<tr>
<td>MAT156</td>
<td>Statistics</td>
<td>3</td>
</tr>
</tbody>
</table>

**View Course Descriptions**

**Total Credits 18**

---
Industrial Automation Technology – Diploma Courses

Award: Diploma  
Program Start: Fall only  
Enrollment Status: Full-time or part-time

The Diploma program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

Eight-Week Courses * **
Courses marked with one asterisk (*) meet the first 8-weeks of the semester. Courses marked with two asterisks (**) meet the second 8-weeks of the semester.

<table>
<thead>
<tr>
<th>Semester 1</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EGT140 Fluid Power *</td>
<td>2</td>
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</tr>
<tr>
<td>EGT149 Fluid Power Systems II **</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELT139 Electrical Systems *</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELT149 Advanced Electrical Systems **</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELT192 Introduction to EET Computer Science</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IND100 Basic Mechanical Systems *</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IND111 Industrial Safety Mechanical Systems **</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>MAT772 Applied Math</td>
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<td></td>
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<td></td>
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<table>
<thead>
<tr>
<th>Semester 2</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>COM781 Written Communication in the Workplace -OR-</td>
<td>3</td>
<td></td>
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</tr>
<tr>
<td>ENG105 Composition I</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EGT144 Fluid Power Applications *</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELT215 Motors and Controls *</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELT234 PLC Programming **</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELT403 Visual Basic</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WEL339 Electromechanical Maintenance</td>
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</tr>
<tr>
<td><strong>Total Credits 15</strong></td>
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</table>
## Industrial Electrical Maintenance – Certificate Courses

**Award:** Certificate  
**Program Start:** Fall only  
**Enrollment Status:** Full-time or part-time

The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

<table>
<thead>
<tr>
<th>Semester 1</th>
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<tbody>
<tr>
<td>EGT140</td>
<td>ELT149</td>
</tr>
<tr>
<td>Fluid Power</td>
<td>Advanced Electrical Systems</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>EGT149</td>
<td>ELT215</td>
</tr>
<tr>
<td>Fluid Power Systems II</td>
<td>Motors and Controls</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>ELT139</td>
<td>ELT234</td>
</tr>
<tr>
<td>Electrical Systems</td>
<td>PLC Programming</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>IND100</td>
<td></td>
</tr>
<tr>
<td>Basic Mechanical Systems</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MAT772</td>
<td></td>
</tr>
<tr>
<td>Applied Math</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

**View Course Descriptions**  
**Total Credits 13**  
**Total Credits 6**

### Program Options

- AAS degree
- Diploma
- Industrial Electrical Maintenance - Certificate
- Machine Maintenance - Certificate

### Program Contacts

**Department Secretary**  
Kendra Wyatt-Koger  
Buchanan Hall 103  
319-296-4009  
Email me

**Program Advisors**  
Doug Kruger  
Butler Hall 138D  
319-296-2329 ext.1303  
Email me  
Dan Utley  
Butler Hall 138A  
319-296-2329 ext.1730  
Email me  
Dean  
Ray Beets  
Butler Hall 104-A  
319-296-4042  
Email me

**College Catalog | Next Page >**
Industrial Electrical Maintenance – Certificate Courses

Award: Certificate
Program Start: Fall only
Enrollment Status: Full-time or part-time

The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

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</thead>
<tbody>
<tr>
<td>EGT140 Fluid Power</td>
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<tr>
<td>EGT149 Fluid Power Systems II</td>
<td>3</td>
</tr>
<tr>
<td>ELT139 Electrical Systems</td>
<td>3</td>
</tr>
<tr>
<td>ELT149 Advanced Electrical Systems</td>
<td>2</td>
</tr>
<tr>
<td>MAT772 Applied Math</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits 13</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ELT215 Motors and Controls</td>
<td>2</td>
</tr>
<tr>
<td>ELT234 PLC Programming</td>
<td>2</td>
</tr>
<tr>
<td>IND100 Basic Mechanical Systems</td>
<td>2</td>
</tr>
<tr>
<td>IND111 Industrial Safety Mechanical Systems</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total Credits 7</strong></td>
<td></td>
</tr>
</tbody>
</table>
Machine Maintenance – Certificate Courses

Award: Certificate
Program Start: Fall only
Enrollment Status: Full-time or part-time

The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

<table>
<thead>
<tr>
<th>Semester 1</th>
<th></th>
<th>Semester 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EGT140 Fluid Power</td>
<td>2</td>
<td>EGT144 Fluid Power Applications</td>
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</tr>
<tr>
<td>EGT149 Fluid Power Systems II</td>
<td>3</td>
<td>ELT103 Facilities Blueprint Reading</td>
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<td>ELT139 Electrical Systems</td>
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<td>ELT215 Motors and Controls</td>
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<td>ELT149 Advanced Electrical Systems</td>
<td>2</td>
<td>IND100 Basic Mechanical Systems</td>
<td>2</td>
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<tr>
<td>MAT772 Applied Math</td>
<td>3</td>
<td>IND145 Mechanical Power Transfer</td>
<td>2</td>
</tr>
</tbody>
</table>

View Course Descriptions

Total Credits 13

Total Credits 11
Machine Maintenance – Certificate Courses

Award: Certificate
Program Start: Fall only
Enrollment Status: Full-time or part-time

The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

### Semester 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>EGT140</td>
<td>Fluid Power</td>
<td>2</td>
</tr>
<tr>
<td>EGT149</td>
<td>Fluid Power Systems II</td>
<td>3</td>
</tr>
<tr>
<td>ELT139</td>
<td>Electrical Systems</td>
<td>3</td>
</tr>
<tr>
<td>EGT149</td>
<td>Advanced Electrical Systems</td>
<td>2</td>
</tr>
<tr>
<td>IND111</td>
<td>Industrial Safety Mechanical Systems</td>
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<tr>
<td>MAT772</td>
<td>Applied Math</td>
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**Total Credits 14**

### Semester 2

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<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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<td>ELT103</td>
<td>Facilities Blueprint Reading</td>
<td>3</td>
</tr>
<tr>
<td>ELT215</td>
<td>Motors and Controls</td>
<td>2</td>
</tr>
<tr>
<td>IND100</td>
<td>Basic Mechanical Systems</td>
<td>2</td>
</tr>
<tr>
<td>IND145</td>
<td>Mechanical Power Transfer</td>
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</tr>
</tbody>
</table>

**Total Credits 11**
Sustainable Construction and Design

The Sustainable Construction and Design program prepares students to design and construct residences that are both sustainable and highly energy efficient. Students learn how to construct new homes that are durable, use very little energy for heating, cooling, and lighting, and provide a healthy environment for the occupants. The program utilizes a “whole systems approach” to train graduates to understand the integral relationship between materials, building techniques, mechanical systems, and subcontractors in the production of energy efficient and sustainable homes. Students will learn about the use of green and renewable materials, the proper installation of all components and sub-systems, and the reduction of construction site waste.

Students will apply the concepts they learn in hands-on building experiences. Building training includes but is not limited to: foundations, concrete work, advanced framing, siding, roofing, thermal and moisture protection, drywall installation and finishing, stair construction, finishing, cabinet installation, HVAC, electrical, plumbing, appliances, and landscaping.

Students will also learn to perform energy audits on existing homes to identify problems, develop solutions, and retrofit those solutions cost effectively.

The Sustainable Construction and Design program follows the National Center for Construction Education and Research (NCCER) training, assessment, certification, and career development standards for residential construction and maintenance craft professionals. Program concepts align with the U.S. Green Building Council's initiatives.

Transfer Information

Hawkeye's Industrial and Engineering Technology department has a block articulation agreement with the University of Northern Iowa to transfer general education and technical credits. Graduates may transfer credits into the Construction Management program at UNI. For more information, contact a program advisor.

Program Contacts
Department Secretary
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319-296-4009
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Program Advisor
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Email me

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me
Sustainable Construction and Design Careers

Graduates will find employment as:

- building designers
- sustainable construction professionals
- carpenters
- insulation workers
- residential site supervisors
- energy auditors

They will also be prepared to continue their education to become:

- construction managers
- building inspectors
- commercial drafters
- electricians
- plumbers
- HVAC designers

Placement

Starting Wages: $26,500 - $34,500 per year*

*Source: Iowa Workforce Development
Sustainable Construction and Design Admission Requirements

Basic Skill Competencies Requirements

Option 1
Score at least the following scores on any combination of the below assessment options:

<table>
<thead>
<tr>
<th>ACT sub scores</th>
<th>COMPASS scores</th>
<th>ASSET scores</th>
<th>ACCUPLACER scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>14 - Math</td>
<td>24 - Pre-Algebra</td>
<td>38 - Numerical</td>
<td>40 - Arithmetic</td>
</tr>
<tr>
<td>16 - Reading</td>
<td>69 - Reading</td>
<td>34 - Reading</td>
<td>62 - Reading</td>
</tr>
<tr>
<td>16 - English</td>
<td>41 - Writing</td>
<td>35 - Writing</td>
<td>77 - Sentence Skills</td>
</tr>
</tbody>
</table>

Applicants can take the ACT assessment or the COMPASS assessment at Hawkeye. Pre-registration is required.

Option 2
Complete all of the following college success courses with a "C" grade or higher at Hawkeye Community College or comparable courses at another accredited college:
- ENG060 College Preparatory Writing I
- RDG039 College Preparatory Reading II
- MAT045 Fundamentals of Math

Option 3
Any combination of the above fulfilling the basic skills requirements of algebra, reading, and writing.

Admissions Process

1. **Apply for admission.**

2. Completed applicant files (we have your application, transcripts, and test scores) will be processed as follows:
   a. Applicants meeting the program's admission requirements will be sent an admissions inactivation letter.
   b. Applicants meeting the program's admission requirements will be accepted.

3. We accept approximately 24 students and 24 alternates each Fall Semester. Applicants will be accepted based on the date their completed applicant file. If many students share the same date for completing their applicant files, the application date will be used to prioritize their acceptance.

4. If necessary, alternates will be contacted to fill unconfirmed positions in the program. Alternates will be given priority for the next term.

Hawkeye's Equal Opportunity Statement
Sustainable Construction and Design Courses

Award: Associate of Applied Science (AAS)
Program Start: Fall only
Enrollment Status: Full-time only

The **Sustainable Construction and Design program** requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Credit</th>
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<tbody>
<tr>
<td>CON102 Introduction to Residential Construction</td>
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<tr>
<td>CON108 Construction Safety</td>
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</tr>
<tr>
<td>CON129 Concrete Lab</td>
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</tr>
<tr>
<td>CON130 Concrete Theory</td>
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</tr>
<tr>
<td>CON131 Site Layout and Blueprint Reading</td>
<td>1</td>
</tr>
<tr>
<td>CON133 Construction Technology Lab</td>
<td>4</td>
</tr>
<tr>
<td>CON201 Framing Techniques and Lab I</td>
<td>2</td>
</tr>
<tr>
<td>CON302 Building Science I</td>
<td>1</td>
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<tr>
<td>MAT772 Applied Math -OR-</td>
<td>3</td>
</tr>
<tr>
<td>MAT110 Math for Liberal Arts -OR-</td>
<td>3</td>
</tr>
<tr>
<td>MAT122 College Algebra -OR-</td>
<td>5</td>
</tr>
<tr>
<td>MAT128 Precalculus -OR-</td>
<td>4</td>
</tr>
<tr>
<td>MAT134 Trigonometry and Analytic Geometry</td>
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</tbody>
</table>

**View Course Descriptions**

**Total Credits 17**

<table>
<thead>
<tr>
<th>Semester 2</th>
<th>Credit</th>
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<tbody>
<tr>
<td>COM781 Written Communication in the Workplace -OR-</td>
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<tr>
<td>ENG105 Composition I</td>
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<tr>
<td>CON121 Carpentry Fundamentals I</td>
<td>4</td>
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<tr>
<td>CON146 Construction Technology Lab 2</td>
<td>3</td>
</tr>
<tr>
<td>CON214 Exterior Framing Systems I</td>
<td>3</td>
</tr>
<tr>
<td>CON217 Exterior Finishing</td>
<td>3</td>
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**View Course Descriptions**

**Total Credits 16**
<table>
<thead>
<tr>
<th>Semester 3</th>
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<tbody>
<tr>
<td>CAD200 CAD SoftPlan</td>
<td>3</td>
<td></td>
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<tr>
<td>CON228 Methods of Interior Finishing</td>
<td>3</td>
<td></td>
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<tr>
<td>CON386 Sustainable Design</td>
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<tr>
<td>CON510 Construction Technology Lab 3</td>
<td>3</td>
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<tr>
<td>PSY102 Human and Work Relations -OR-</td>
<td>3</td>
<td></td>
<td></td>
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<tr>
<td>PSY111 Introduction to Psychology -OR-</td>
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<td>SOC110 Introduction to Sociology</td>
<td>3</td>
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<tr>
<td>SPC101 Fundamentals of Oral Communication</td>
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<tr>
<td><strong>View Course Descriptions</strong></td>
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<td><strong>Total Credits</strong></td>
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<tr>
<th>Semester 4</th>
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<tbody>
<tr>
<td>CON290 Construction Estimating and Project Management</td>
<td>2</td>
<td></td>
<td></td>
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<tr>
<td>CON512 Construction Technology Lab 4</td>
<td>3</td>
<td></td>
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<tr>
<td>ENV155 Residential Energy Auditing</td>
<td>4</td>
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<tr>
<td>HCR201 Manual J and D HVAC Design</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>View Course Descriptions</strong></td>
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<tr>
<td><strong>Total Credits</strong></td>
<td>12</td>
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</table>
Welding

The Welding program prepares students to enter into the industry as beginning production, maintenance, or job shop welders. Students are trained using the latest techniques in the fabrication of materials by welding process.

Welding continues to be one of the principle means of fabricating and repairing metal products. An independent certification laboratory evaluates each student's performance on the American Welding Society Structural Steel Bend test for possible certification before graduation.

Evening Program

Earn a diploma in welding in the evening! With classes starting at 3:00pm, the evening program allows you to work and go to school at the same time.

Transfer Information

Hawkeye Community College has a block articulation agreement with the University of Northern Iowa to transfer general education and technical credits. For more information, contact a program advisor.
Welding Careers

Graduates of the Welding program enter the industry as beginning maintenance or job shop welders.

Placement
Starting Wages: $26,500 - $34,500 per year*

Many graduates in this field work overtime.

Iowa Workforce Development forecasts more than 395 job openings each year for welders through 2020. Welders, cutters, solderers, and brazers are some of the top occupations in Iowa with the most job openings.

*Source: Iowa Workforce Development

Employers

<table>
<thead>
<tr>
<th>ADA Enterprises</th>
<th>Northwood, IA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baumgartner Gate Factory</td>
<td>Manchester, IA</td>
</tr>
<tr>
<td>GMT Corporation</td>
<td>Waverly, IA</td>
</tr>
<tr>
<td>Iowa Laser</td>
<td>Cedar Falls, IA</td>
</tr>
<tr>
<td>John Deere</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>Terex Cranes, Inc.</td>
<td>Waverly, IA</td>
</tr>
<tr>
<td>Wayne Engineering</td>
<td>Cedar Falls, IA</td>
</tr>
</tbody>
</table>

Program Contacts

Department Secretary
Kendra Wyatt-Koger
Buchanan Hall 103
319-296-4009
Email me

Program Advisors
Jeff Jantzen
Buchanan Hall 124-C
319-296-2329 ext.1432
Email me

Fred Kjeld
Buchanan Hall 124-C
319-296-2329 ext.1347
Email me

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me
Welding Admission Requirements

Basic Skill Competencies Requirements

Option 1

Score at least the following scores on any combination of the below assessment options:

<table>
<thead>
<tr>
<th>ACT sub scores</th>
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<th>ASSET scores</th>
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<td>41 - Writing</td>
<td>35 - Writing</td>
<td>77 - Sentence Skills</td>
</tr>
</tbody>
</table>

Applicants can take the [ACT assessment](#) or the [COMPASS assessment](#) at Hawkeye. Pre-registration is required.

Option 2

Complete all of the following college success courses with a “C” grade or higher at Hawkeye Community College or comparable courses at another accredited college:

- ENG060 College Preparatory Writing I
- RDG039 College Preparatory Reading II
- MAT045 Fundamentals of Math

Option 3

Any combination of the above fulfilling the basic skills requirements of algebra, reading, and writing.

Admissions Process

1. [Apply for admission](#).

2. Completed applicant files (we have your application, transcripts, and test scores) will be processed as follows:
   a. Applicants meeting the program’s admission requirements will be sent an admissions inactivation letter.
   b. Applicants meeting the program’s admission requirements will be accepted.

3. We accept approximately 30 students (15 day / 15 night) and 30 alternates each Fall and Spring Semester. Applicants will be accepted based on the date their completed applicant file. If many students share the same date for completing their applicant files, the application date will be used to prioritize their acceptance.

4. If necessary, alternates will be contacted to fill unconfirmed positions in the program. Alternates will be given priority for the next term.

Hawkeye’s Equal Opportunity Statement
Welding – Diploma 1 Courses

Award: Diploma
Program Start: Fall, Spring

The Diploma 1 program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Total Credits 16</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT772  Applied Math -OR-</td>
<td>3</td>
</tr>
<tr>
<td>MAT122  College Algebra</td>
<td>5</td>
</tr>
<tr>
<td>WEL111  Welding Blueprint Reading</td>
<td>3</td>
</tr>
<tr>
<td>WEL134  Cutting Processes</td>
<td>2</td>
</tr>
<tr>
<td>WEL155  Arc Welding I (SMAW)</td>
<td>4</td>
</tr>
<tr>
<td>WEL186  GMAW -OR-</td>
<td>4</td>
</tr>
<tr>
<td>WEL104  Introduction to MIG Welding -AND-</td>
<td>2</td>
</tr>
<tr>
<td>WEL234  Introduction to GMAW II</td>
<td>2</td>
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</table>

View Course Descriptions                      Total Credits 16

<table>
<thead>
<tr>
<th>Semester 2</th>
<th>Total Credits 13</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM730  Communications</td>
<td>3</td>
</tr>
<tr>
<td>WEL112  Welding Blueprint Reading/ Advanced</td>
<td>2</td>
</tr>
<tr>
<td>WEL164  Arc Welding II (SMAW)</td>
<td>4</td>
</tr>
<tr>
<td>WEL187  Advanced GMAW</td>
<td>4</td>
</tr>
</tbody>
</table>

View Course Descriptions                      Total Credits 13

<table>
<thead>
<tr>
<th>Semester 3</th>
<th>Total Credits 14</th>
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</thead>
<tbody>
<tr>
<td>WEL125  Fusion and Braze Welding</td>
<td>2</td>
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<tr>
<td>WEL191  Gas Tungsten Arc Welding</td>
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<tr>
<td>WEL303  Pipe Welding/ SMAW</td>
<td>3</td>
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<tr>
<td>WEL710  Robotic Welding</td>
<td>6</td>
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</tbody>
</table>

View Course Descriptions                      Total Credits 14
Welding – Diploma 2 Courses

**Award:** Diploma

**Program Start:** Fall, Spring

The Diploma 2 program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

<table>
<thead>
<tr>
<th>Semester 1</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT772</td>
<td>Applied Math -OR-</td>
<td>3</td>
</tr>
<tr>
<td>MAT122</td>
<td>College Algebra</td>
<td>5</td>
</tr>
<tr>
<td>WEL111</td>
<td>Welding Blueprint Reading</td>
<td>3</td>
</tr>
<tr>
<td>WEL134</td>
<td>Cutting Processes</td>
<td>2</td>
</tr>
<tr>
<td>WEL155</td>
<td>Arc Welding I (SMAW)</td>
<td>4</td>
</tr>
<tr>
<td>WEL186</td>
<td>GMAW -OR-</td>
<td>4</td>
</tr>
<tr>
<td>WEL104</td>
<td>Introduction to MIG Welding -AND-</td>
<td>2</td>
</tr>
<tr>
<td>WEL234</td>
<td>Introduction to GMAW II</td>
<td>2</td>
</tr>
</tbody>
</table>

**View Course Descriptions**

Total Credits 16

<table>
<thead>
<tr>
<th>Semester 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>COM730</td>
<td>Communications</td>
</tr>
<tr>
<td>WEL112</td>
<td>Welding Blueprint Reading/ Advanced</td>
</tr>
<tr>
<td>WEL164</td>
<td>Arc Welding II (SMAW)</td>
</tr>
<tr>
<td>WEL187</td>
<td>Advanced GMAW</td>
</tr>
</tbody>
</table>

**View Course Descriptions**

Total Credits 13

---

Program Options

- Diploma 1
- Diploma 2
- Certificate

Program Contacts

**Department Secretary**
Kendra Wyatt-Koger
Buchanan Hall 103
319-296-4009
Email me

**Program Advisors**
Jeff Jantzen
Buchanan Hall 124-C
319-296-2329 ext.1432
Email me

Fred Kjeld
Buchanan Hall 124-C
319-296-2329 ext.1347
Email me

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me

College Catalog | Next Page >
**Welding – Certificate Courses**

**Award:** Certificate  
**Program Start:** Fall, Spring

The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

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</tr>
</thead>
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<td>MAT772 Applied Math -OR-</td>
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</tr>
<tr>
<td>MAT122 College Algebra</td>
<td>5</td>
</tr>
<tr>
<td>WEL111 Welding Blueprint Reading</td>
<td>3</td>
</tr>
<tr>
<td>WEL134 Cutting Processes</td>
<td>2</td>
</tr>
<tr>
<td>WEL155 Arc Welding I (SMAW)</td>
<td>4</td>
</tr>
<tr>
<td>WEL186 GMAW -OR-</td>
<td>4</td>
</tr>
<tr>
<td>WEL104 Introduction to MIG Welding -AND-</td>
<td>2</td>
</tr>
<tr>
<td>WEL234 Introduction to GMAW II</td>
<td>2</td>
</tr>
</tbody>
</table>

|  | Total Credits 16 |

View Course Descriptions

**Program Contacts**

**Department Secretary**  
Kendra Wyatt-Koger  
Buchanan Hall 103  
319-296-4009  
Email me

**Program Advisors**  
Jeff Jantzen  
Buchanan Hall 124-C  
319-296-2329 ext.1432  
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Fred Kjeld  
Buchanan Hall 124-C  
319-296-2329 ext.1347  
Email me

**Dean**  
Ray Beets  
Butler Hall 104-A  
319-296-4042  
Email me
Information Systems Management

The Information Systems Management program prepares students to examine the implementation and management of information systems in today’s technological business environment. This program provides students with a solid understanding of hardware, networks, and applications along with their impact on a business.

The first year of coursework focuses on information technology such as hardware, operating systems, and networking equipment. Hawkeye is a Regional Academy for CISCO Systems and delivers their curriculum covering switches and routers, preparing students to obtain the CCNA industry certification. Students are also trained and encouraged to pursue the CompTIA A+ certification as well as Microsoft MTA certification.

The second year focuses on business. Students gain an understanding of business to enable them to provide systems to support key business objectives as an information technology professional. These classes cover a variety of topics including human resources, accounting, and marketing.

Hawkeye's Information Technology programs are located in Black Hawk Hall. The Information Technology lab equipment, environment, and technology are state-of-the-art.

Transfer Information

Students enrolled in the Information Systems Management program interested in continuing their education should contact a program advisor.
Information Systems Management Careers

Information Systems Management graduates will be ready to accept employment in positions such as:

- network manager
- help desk manager
- information systems manager
- information technology manager

Employers

<table>
<thead>
<tr>
<th>CBE Group</th>
<th>Cedar Falls, IA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cedar Valley Medical Specialist</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>Veridian Credit Union</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>Waverly Light and Power</td>
<td>Waverly, IA</td>
</tr>
</tbody>
</table>

Program Contacts

Department Secretary
Cindi Clark
Black Hawk Hall 177
319-296-4021
Email me

Program Advisor
Todd Bengen
Black Hawk Hall 186
319-296-2329 ext.1124
Email me

Dean
Bryan Renfro
Black Hawk Hall 180
319-296-4427
Email me
Information Systems Management Admission Requirements

Basic Skill Competencies Requirements

Option 1
Score at least the following scores on any combination of the below assessment options:

<table>
<thead>
<tr>
<th>ACT sub scores</th>
<th>COMPASS scores</th>
<th>ASSET scores</th>
<th>ACCUPLACER scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>19 - Reading</td>
<td>82 - Reading</td>
<td>38 - Reading</td>
<td>90 - Reading</td>
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<td>98 - Sentence Skills</td>
</tr>
<tr>
<td>19 - Math</td>
<td>42 - Algebra</td>
<td>40 - Elementary Algebra</td>
<td>103 - Arithmetic OR</td>
</tr>
</tbody>
</table>

Applicants can take the ACT assessment or the COMPASS assessment at Hawkeye. Pre-registration is required.

Option 2
Complete all of the following college success courses with a "C" grade or higher at Hawkeye Community College or comparable courses at another accredited college:

- ENG061 College Preparatory Writing II
- RDG040 College Preparatory Reading III
- MAT063 Elementary Algebra

Option 3
Any combination of the above fulfilling the basic skills requirements of algebra, reading, and writing.

Admissions Process

1. Apply for admission.

2. Completed applicant files (we have your application, transcripts, and test scores) will be processed as follows:
   a. Applicants meeting the program’s admission requirements will be sent an admissions inactivation letter.
   b. Applicants meeting the program’s admission requirements will be accepted.

3. We accept approximately 24 students and 20 alternates each Fall Semester. Applicants will be accepted based on the date their completed applicant file. If many students share the same date for completing their applicant files, the application date will be used to prioritize their acceptance.

4. If necessary, alternates will be contacted to fill unconfirmed positions in the program. Alternates will be given priority for the next term.

Hawkeye's Equal Opportunity Statement
# Information Systems Management Courses

**Award:** Associate of Applied Science (AAS)

**Program Start:** Fall only

The Information Systems Management program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

## Semester 1

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<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CIS303</td>
<td>Introduction to Database</td>
<td>3</td>
</tr>
<tr>
<td>CSC110</td>
<td>Introduction to Computers -OR-</td>
<td>3</td>
</tr>
<tr>
<td>BCA205</td>
<td>Database/Spreadsheets</td>
<td>3</td>
</tr>
<tr>
<td>MAT110</td>
<td>Math for Liberal Arts -OR-</td>
<td>3</td>
</tr>
<tr>
<td>MAT122</td>
<td>College Algebra -OR-</td>
<td>5</td>
</tr>
<tr>
<td>MAT134</td>
<td>Trigonometry and Analytic Geometry -OR-</td>
<td>3</td>
</tr>
<tr>
<td>MAT210</td>
<td>Calculus I</td>
<td>4</td>
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<tr>
<td>NET109</td>
<td>A+ Certification Prep</td>
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<tr>
<td>NET213</td>
<td>CISCO Networking</td>
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**Total Credits 17**

## Semester 2

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<th>Course Name</th>
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<td>Introduction to Business</td>
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<td>COM781</td>
<td>Written Communication in the Workplace -OR-</td>
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<tr>
<td>ENG105</td>
<td>Composition I</td>
<td>3</td>
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<tr>
<td>NET225</td>
<td>Routing and Switching Essentials</td>
<td>4</td>
</tr>
<tr>
<td>NET313</td>
<td>Windows Server</td>
<td>3</td>
</tr>
<tr>
<td>PSY102</td>
<td>Human and Work Relations -OR-</td>
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</tr>
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<tr>
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**Total Credits 16**

## Semester 3

<table>
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<tr>
<td>MGT101</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>NET268</td>
<td>CCNA Routing and Switching: Scaling Networks</td>
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<td>SPC101</td>
<td>Fundamentals of Oral Communication</td>
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<td>CIS750</td>
<td>Project Management</td>
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<td>MGT170</td>
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<td>NET932</td>
<td>Internship</td>
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<table>
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<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
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<td>Basic Web Design Software</td>
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<tr>
<td>BCA232</td>
<td>Multimedia for Web Design</td>
<td>3</td>
</tr>
<tr>
<td>BUS183</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>GRA150</td>
<td>Introduction to Web Design</td>
<td>3</td>
</tr>
<tr>
<td>GRA162</td>
<td>Web Page Graphics</td>
<td>3</td>
</tr>
<tr>
<td>NET152</td>
<td>Advanced Network Technologies</td>
<td>3</td>
</tr>
<tr>
<td>NET310</td>
<td>Virtual Machines</td>
<td>3</td>
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<tr>
<td>NET343</td>
<td>Windows Directory Services</td>
<td>3</td>
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<tr>
<td>NET346</td>
<td>Windows Exchange Server</td>
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<tr>
<td>NET412</td>
<td>Linux System Administration</td>
<td>3</td>
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<tr>
<td>NET474</td>
<td>Certification Preparation</td>
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<tr>
<td>NET475</td>
<td>Certification Preparation</td>
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<tr>
<td>NET612</td>
<td>Fundamentals of Network Security</td>
<td>3</td>
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**Information Technology Electives**

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<tr>
<th>Course Code</th>
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS183</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>GRA150</td>
<td>Introduction to Web Design</td>
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<tr>
<td>NET475</td>
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<td>2</td>
</tr>
<tr>
<td>NET612</td>
<td>Fundamentals of Network Security</td>
<td>3</td>
</tr>
</tbody>
</table>

View Course Descriptions
Network Administration and Engineering

The Network Administration and Engineering program prepares students to design and manage local and wide area networks. In the information technology industry, certifications are a must. This program targets professional certifications including Cisco CCNA, Microsoft MTA, and CompTIA A+.

Coursework is directly related to these industry recognized certifications. Students learn computer hardware, operating systems, server configuration, and network management. Students are prepared to design, implement, and support routers, switches, and wireless networks of all sizes. They also learn server administration, database and mail servers, and project management. Continually on the cutting edge of technology, students have the opportunity to learn about virtual machines, multi-layer switching, VPN solutions, and more.

Students design, layout, and write specifications for networks. Students learn to set-up, maintain, and support networks, servers, and security.

Hawkeye's Cisco Regional and Microsoft IT Academies provide access to the newest software and technology. Students gain hands-on experience with Windows 7, Server 2008, Exchange, and SQL Server platforms. Through internship opportunities, students can apply classroom theories and concepts in a business IT setting.

Hawkeye's Information Technology programs are located in Black Hawk Hall. The Information Technology lab equipment, environment, and technology are state-of-the-art.

Transfer Information

Students in the Network Administration and Engineering program interested in continuing their education should contact a program advisor.
Network Administration and Engineering Careers

Graduates accept employment in positions such as network administrator, network technician, LAN/WAN engineer, or LAN/WAN administrator.

Placement
Starting Wages: $32,000 - $46,000 per year*

The demand for well-trained network administrators continues to grow both here in the Cedar Valley and nationwide. A continuous need for Microsoft and CISCO certified technicians is created by expanding local companies and new companies that are moving into Iowa. In addition, the outlook calls for a labor shortage to continue for the next five to ten years.

*Source: Iowa Workforce Development

Employers

<table>
<thead>
<tr>
<th>ACES</th>
<th>Cedar Falls, IA</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBE Group</td>
<td>Cedar Falls, IA</td>
</tr>
<tr>
<td>Cedar Falls Utilities</td>
<td>Cedar Falls, IA</td>
</tr>
<tr>
<td>John Deere</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>Locknet</td>
<td>Cedar Falls, IA</td>
</tr>
<tr>
<td>Networking Solutions</td>
<td>Waterloo, IA</td>
</tr>
</tbody>
</table>

Program Contacts

Department Secretary
Cindi Clark
Black Hawk Hall 177
319-296-4021
Email me

Program Advisor
Todd Bengen
Black Hawk Hall 186
319-296-2329 ext.1124
Email me

Dean
Bryan Renfro
Black Hawk Hall 180
319-296-4427
Email me
Network Administration and Engineering Admission Requirements

Basic Skill Competencies Requirements

Option 1
Score at least the following scores on any combination of the below assessment options:

<table>
<thead>
<tr>
<th>ACT sub scores</th>
<th>COMPASS scores</th>
<th>ASSET scores</th>
<th>ACCUPLACER scores</th>
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<td>40 - Writing</td>
<td>98 - Sentence Skills</td>
</tr>
<tr>
<td>19 - Math</td>
<td>42 - Algebra</td>
<td>40 - Elementary Algebra</td>
<td>103 - Arithmetic OR</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>97 - Elementary Algebra</td>
</tr>
</tbody>
</table>

Applicants can take the [ACT assessment](#) or the [COMPASS assessment](#) at Hawkeye. Pre-registration is required.

Option 2
Complete all of the following college success courses with a "C" grade or higher at Hawkeye Community College or comparable courses at another accredited college:

- ENG061 College Preparatory Writing II
- RDG040 College Preparatory Reading III
- MAT063 Elementary Algebra

Option 3
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Admissions Process

1. Apply for admission.

2. Completed applicant files (we have your application, transcripts, and test scores) will be processed as follows:
   a. Applicants meeting the program’s admission requirements will be sent an admissions inactivation letter.
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3. We accept approximately 24 students and 20 alternates each Fall Semester. Applicants will be accepted based on the date their completed applicant file. If many students share the same date for completing their applicant files, the application date will be used to prioritize their acceptance.

4. If necessary, alternates will be contacted to fill unconfirmed positions in the program. Alternates will be given priority for the next term.

Hawkeye's Equal Opportunity Statement
Network Administration and Engineering Courses

Award: Associate of Applied Science (AAS)
Program Start: Fall only

The **AAS degree program** requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>COM781 Written Communication in the Workplace -OR-</td>
<td>3</td>
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<tr>
<td>ENG105 Composition I</td>
<td>3</td>
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<tr>
<td>CSC110 Introduction to Computers -OR-</td>
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<td>NET213 CISCO Networking</td>
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<table>
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<tr>
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</tr>
</thead>
<tbody>
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<td>Semester 2</td>
<td></td>
</tr>
<tr>
<td>CIS303 Introduction to Database</td>
<td>3</td>
</tr>
<tr>
<td>NET225 Routing and Switching Essentials</td>
<td>4</td>
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<tr>
<td>NET313 Windows Server</td>
<td>3</td>
</tr>
<tr>
<td>NET412 Linux System Administration</td>
<td>3</td>
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<tr>
<td>PSY102 Human and Work Relations -OR-</td>
<td>3</td>
</tr>
<tr>
<td>PSY111 Introduction to Psychology -OR-</td>
<td>3</td>
</tr>
<tr>
<td>SOC110 Introduction to Sociology</td>
<td>3</td>
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<table>
<thead>
<tr>
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<th>Total Credits 16</th>
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</thead>
<tbody>
<tr>
<td>Semester 3</td>
<td></td>
</tr>
<tr>
<td>NET268 CCNA Routing and Switching: Scaling Networks</td>
<td>3</td>
</tr>
<tr>
<td>NET310 Virtual Machines</td>
<td>3</td>
</tr>
<tr>
<td>NET343 Windows Directory Services</td>
<td>3</td>
</tr>
<tr>
<td>NET346 Windows Exchange Server</td>
<td>3</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
</tr>
<tr>
<td>-------------</td>
<td>-------------------------------------------</td>
</tr>
<tr>
<td>NET612</td>
<td>Fundamentals of Network Security</td>
</tr>
<tr>
<td>SPC101</td>
<td>Fundamentals of Oral Communication</td>
</tr>
<tr>
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### Semester 4

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<td>CIS750</td>
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<td>NET269</td>
<td>CCNA Routing and Switching: Connecting Networks</td>
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<tr>
<td>NET710</td>
<td>SQL Database</td>
<td>2</td>
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<td>NET916</td>
<td>Experiential Learning</td>
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<td>NET932</td>
<td>Internship</td>
<td>2</td>
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<tr>
<td></td>
<td><strong>Information Technology Elective</strong></td>
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<td><strong>Total Credits 17</strong></td>
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</tr>
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</table>

### Information Technology Elective Electives

<table>
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<tr>
<td>BCA183</td>
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</tr>
<tr>
<td>BCA232</td>
<td>Multimedia for Web Design</td>
<td>3</td>
</tr>
<tr>
<td>GRA150</td>
<td>Introduction to Web Design</td>
<td>3</td>
</tr>
<tr>
<td>GRA162</td>
<td>Web Page Graphics</td>
<td>3</td>
</tr>
<tr>
<td>NET152</td>
<td>Advanced Network Technologies</td>
<td>3</td>
</tr>
<tr>
<td>NET474</td>
<td>Certification Preparation</td>
<td>1</td>
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<tr>
<td>NET475</td>
<td>Certification Preparation</td>
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</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td></td>
</tr>
</tbody>
</table>

View Course Descriptions
Network Administration and Engineering Courses

**Award:** Associate of Applied Science (AAS)

**Program Start:** Fall only

The **AAS degree program** requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

### Semester 1

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>COM781</td>
<td>Written Communication in the Workplace -OR-</td>
<td>3</td>
</tr>
<tr>
<td>ENG105</td>
<td>Composition I</td>
<td>3</td>
</tr>
<tr>
<td>CSC110</td>
<td>Introduction to Computers -OR-</td>
<td>3</td>
</tr>
<tr>
<td>BCA205</td>
<td>Database/Spreadsheets</td>
<td>3</td>
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<tr>
<td>MAT110</td>
<td>Math for Liberal Arts</td>
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<td>NET109</td>
<td>A+ Certification Prep</td>
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<tr>
<td>NET213</td>
<td>CISCO Networking</td>
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View Course Descriptions  
Total Credits 17

### Semester 2

<table>
<thead>
<tr>
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<th>Title</th>
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<td>CIS303</td>
<td>Introduction to Database</td>
<td>3</td>
</tr>
<tr>
<td>NET225</td>
<td>Routing and Switching Essentials</td>
<td>4</td>
</tr>
<tr>
<td>NET313</td>
<td>Windows Server</td>
<td>3</td>
</tr>
<tr>
<td>NET412</td>
<td>Linux System Administration</td>
<td>3</td>
</tr>
<tr>
<td>PSY102</td>
<td>Human and Work Relations -OR-</td>
<td>3</td>
</tr>
<tr>
<td>PSY111</td>
<td>Introduction to Psychology -OR-</td>
<td>3</td>
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<tr>
<td>SOC110</td>
<td>Introduction to Sociology</td>
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View Course Descriptions  
Total Credits 16

### Semester 3

<table>
<thead>
<tr>
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<td>NET268</td>
<td>CCNA Routing and Switching: Scaling Networks</td>
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<td>Course Title</td>
<td>Credits</td>
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<tr>
<td>------------</td>
<td>------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>NET310</td>
<td>Virtual Machines</td>
<td>3</td>
</tr>
<tr>
<td>NET343</td>
<td>Windows Directory Services</td>
<td>3</td>
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<tr>
<td>NET346</td>
<td>Windows Exchange Server</td>
<td>3</td>
</tr>
<tr>
<td>NET612</td>
<td>Fundamentals of Network Security</td>
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<tr>
<td>SPC101</td>
<td>Fundamentals of Oral Communication</td>
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<tr>
<td></td>
<td><strong>View Course Descriptions</strong></td>
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<table>
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<tr>
<td></td>
<td><strong>Semester 4</strong></td>
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<tr>
<td>CIS750</td>
<td>Project Management</td>
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<td>NET269</td>
<td>CCNA Routing and Switching: Connecting Networks</td>
<td>3</td>
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<td>NET710</td>
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<td>NET916</td>
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<td>NET932</td>
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<td><strong>Information Technology Elective</strong></td>
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<td><strong>Total Credits 17</strong></td>
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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td></td>
<td><strong>Information Technology Elective Electives</strong></td>
<td></td>
</tr>
<tr>
<td>BCA183</td>
<td>Basic Web Design Software</td>
<td>2</td>
</tr>
<tr>
<td>BCA232</td>
<td>Multimedia for Web Design</td>
<td>3</td>
</tr>
<tr>
<td>CIS604</td>
<td>Visual Basic</td>
<td>3</td>
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<tr>
<td>GRA150</td>
<td>Introduction to Web Design</td>
<td>3</td>
</tr>
<tr>
<td>GRA162</td>
<td>Web Page Graphics</td>
<td>3</td>
</tr>
<tr>
<td>NET152</td>
<td>Advanced Network Technologies</td>
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<tr>
<td>NET474</td>
<td>Certification Preparation</td>
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<td><strong>View Course Descriptions</strong></td>
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</tbody>
</table>

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Maintained by Public Relations and Marketing
The Computer Networking Technician - Diploma program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

### Semester 1
- **COM781** Written Communication in the Workplace 3
- **ENG105** Composition I 3
- **CSC110** Introduction to Computers 3
- **BCA205** Database/Spreadsheets 3
- **MAT110** Math for Liberal Arts 3
- **NET109** A+ Certification Prep 4
- **NET213** CISCO Networking 4

Total Credits 17

### Semester 2
- **CIS303** Introduction to Database 3
- **NET225** Routing and Switching Essentials 4
- **NET313** Windows Server 3
- **NET412** Linux System Administration 3
- **PSY102** Human and Work Relations -OR- 3
- **PSY111** Introduction to Psychology -OR- 3
- **SOC110** Introduction to Sociology 3

Total Credits 16
Web Programming and Development

The Web Programming and Development program provides students with the knowledge and the skills to create dynamic websites that are e-commerce ready. Students will learn to design, implement, test, troubleshoot, promote, and maintain dynamic web applications in a hands-on approach.

Students will learn multiple web-related languages such as JavaScript, XHTML, CSS, PHP, ASP.NET, and SQL. The program is geared to give students real world hands-on experience in creating websites. Current web standards are stressed throughout the program. New and developing trends such as Web 3.0 and social networking sites are examined.

Students learn how to integrate databases into websites to form dynamic web applications and solve associated security issues. Students create dynamic sites from simple data displays to more complicated e-commerce enabled web applications. Students gain experience in database design, project management, basic computer hardware, desktop operating systems, and other web-related topics.

Hawkeye's Information Technology programs are located in Black Hawk Hall. The Information Technology lab equipment, environment, and technology are state-of-the-art.

Evening Program
Earn a degree in Web Programming and Development in the evening. With classes starting at 3:00 p.m., the evening program allows students to work and go to school at the same time.

Transfer Information
Students in the Web Programming and Development program interested in continuing their education should contact a program advisor.
Web Programming and Development Careers

Graduates find employment in all types of businesses including:

- manufacturing
- service
- education
- distributors
- retail
- tourism
- non-profit
- government agencies

Placement
Starting Wages: $22,000 - $32,000 per year*

*Source: Iowa Workforce Development

Program Contacts

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Program Advisors
MJ Nelson
Black Hawk Hall 185
319-296-2329 ext.1122
Email me

Dean
Bryan Renfro
Black Hawk Hall 180
319-296-4427
Email me
Web Programming and Development Admission Requirements

Basic Skill Competencies Requirements

Option 1
Score at least the following scores on any combination of the below assessment options:

<table>
<thead>
<tr>
<th>ACT sub scores</th>
<th>COMPASS scores</th>
<th>ASSET scores</th>
<th>ACCUPLACER scores</th>
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</thead>
<tbody>
<tr>
<td>19 - Reading</td>
<td>82 - Reading</td>
<td>38 - Reading</td>
<td>90 - Reading</td>
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<tr>
<td>16 - English</td>
<td>41 - Writing</td>
<td>35 - Writing</td>
<td>77 - Sentence Skills</td>
</tr>
<tr>
<td>16 - Math</td>
<td>39 - Pre-Algebra</td>
<td>40 - Numerical</td>
<td>63 - Arithmetic</td>
</tr>
</tbody>
</table>

Applicants can take the ACT assessment or the COMPASS assessment at Hawkeye. Pre-registration is required.

Option 2
Complete all of the following college success courses with a "C" grade or higher at Hawkeye Community College or comparable courses at another accredited college:

- ENG060 College Preparatory Writing I
- RDG040 College Preparatory Reading III
- MAT052 Pre-Algebra

Option 3
Any combination of the above fulfilling the basic skills requirements of algebra, reading, and writing.

Admissions Process

1. Apply for admission.

2. Completed applicant files (we have your application, transcripts, and test scores) will be processed as follows:
   a. Applicants meeting the program's admission requirements will be sent an admissions inactivation letter.
   b. Applicants meeting the program’s admission requirements will be accepted.

3. We accept approximately 24 students and 24 alternates each Fall Semester. Applicants will be accepted based on the date their completed applicant file. If many students share the same date for completing their applicant files, the application date will be used to prioritize their acceptance.

4. If necessary, alternates will be contacted to fill unconfirmed positions in the program. Alternates will be given priority for the next term.

Hawkeye's Equal Opportunity Statement
# Web Programming and Development Courses

**Award:** Associate of Applied Science (AAS)  
**Program Start:** Fall only

The **Web Programming and Development program** requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

If you are a **current student** your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

## Semester 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
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<td>CIS355</td>
<td>Database Design and Management</td>
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<td>Math for Liberal Arts -OR-</td>
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<tr>
<td>WDV102</td>
<td>Introduction to Web Development</td>
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</tr>
<tr>
<td>WDV105</td>
<td>Web Layouts</td>
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**View Course Descriptions**  
**Total Credits 16**

## Semester 2

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<td>Server Side Web Programming</td>
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<td>PHP Programming</td>
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<td>COM781</td>
<td>Written Communication in the Workplace -OR-</td>
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<td>Composition I</td>
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**View Course Descriptions**  
**Total Credits 15**

## Semester 3

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<td>CIS217</td>
<td>Data Driven Web Page</td>
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<td>CIS225</td>
<td>Advanced Server Side Web Programming</td>
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<td>PSY102</td>
<td>Human and Work Relations -OR-</td>
<td>3</td>
</tr>
<tr>
<td>PSY111</td>
<td>Introduction to Psychology -OR-</td>
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<tr>
<td>SOC110</td>
<td>Introduction to Sociology</td>
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<tr>
<td>CIS249</td>
<td>Web Languages</td>
<td>3</td>
</tr>
<tr>
<td>WDV300</td>
<td>Advanced Topics in Web Development</td>
<td>3</td>
</tr>
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<td>WDV800</td>
<td>Portfolio</td>
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<tr>
<td>WDV931</td>
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<td><strong>Elective</strong></td>
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**Total Credits 17**

### Electives

<table>
<thead>
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<th>Course Title</th>
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<tbody>
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<td>BCA183</td>
<td>Basic Web Design Software</td>
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<tr>
<td>BCA232</td>
<td>Multimedia for Web Design</td>
<td>3</td>
</tr>
<tr>
<td>CIS234</td>
<td>Web Site Administration</td>
<td>3</td>
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<td>CIS274</td>
<td>E-Commerce Design</td>
<td>3</td>
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<td>GRA150</td>
<td>Introduction to Web Design</td>
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**Total Credits 14**

### Math Electives

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</tr>
<tr>
<td>MAT128</td>
<td>Precalculus</td>
<td>4</td>
</tr>
<tr>
<td>MAT134</td>
<td>Trigonometry and Analytic Geometry</td>
<td>3</td>
</tr>
<tr>
<td>MAT156</td>
<td>Statistics</td>
<td>3</td>
</tr>
<tr>
<td>MAT210</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MAT216</td>
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<tr>
<td>MAT219</td>
<td>Calculus III</td>
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</tr>
</tbody>
</table>

**View Course Descriptions**

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Agricultural Power Technology

The Agricultural Power Technology program prepares students for careers as service technicians for farm machinery and power systems in the agricultural industry. Students learn through classroom lecture and hands-on shop experience studying comprehensive applications of repair and maintenance of internal combustion engines, diesel fuel systems, hydraulics, power trains, and electrical/electronic systems.

Transfer Information

Hawkeye's Power Technology department has a block articulation agreement with the University of Northern Iowa Department of Industrial Technology. For more information, contact a program advisor.
Agricultural Power Technology Careers

Our graduates can work as technicians in implement dealerships, factories, construction, independent shops, heavy equipment dealerships, independent farms, and consumer product dealerships.

Other areas our graduates work in include equipment salesperson, service management, service writer, farm service manager, and field representative.

Placement
Starting Wages: $30,000 - $40,000 per year*

*As reported by the Power Technology Department.

Employers

<table>
<thead>
<tr>
<th>Company</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caterpillar</td>
<td>Cedar Rapids, IA Des Moines, IA</td>
</tr>
<tr>
<td>Cedar Valley Corp</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>Deike Implement</td>
<td>Waverly, IA</td>
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<tr>
<td>Goos Implement</td>
<td>Gladbrook, IA</td>
</tr>
<tr>
<td>Titan Machinery</td>
<td>Waverly, IA</td>
</tr>
<tr>
<td>Waterloo Implement</td>
<td>Waterloo, IA</td>
</tr>
</tbody>
</table>

Program Contacts

Department Secretary
Dianne Lellig
Butler Hall 104
319-296-4011
Email me

Program Advisors
Randy Rinkenberger
Butler Hall 121
319-296-2329 ext.1118
Email me

Wes Gielau
Butler Hall 121
319-296-2329 ext.1327
Email me

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me

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Agricultural Power Technology Admission Requirements

1. Be a high school graduate or equivalent.  
   High School Diploma Verification Process.

2. Apply at Hawkeye.

3. Meet basic skill competencies in reading, writing, and math.
   
   Basic skill competencies assessment provides information about your academic skills in reading, writing, and math. This information will be used to determine your acceptance, course selection, and registration.

   For general admission to Hawkeye Community College, students must provide assessment scores in reading, math, and writing.

   College success courses may be required if your assessment score indicates additional help is needed.

   For course placement recommendations, based on your assessment score, review the Assessment Scores and Course Equivalences.

   Accepted Assessments
   - ACT
   - COMPASS
   - ASSET
   - SAT
   - ACCUPLACER (effective Spring 2014)

   Previous College Experience
   Assessment may be waived based on previous college course work in reading, math, and writing. Send your official college transcripts to the Admissions office for evaluation.

Hawkeye's Equal Opportunity Statement
Agricultural Power Technology Courses

**Award:** Associate of Applied Science (AAS)  
**Program Start:** Fall only  
**Enrollment Status:** Full-time only

The Agricultural Power Technology program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

<table>
<thead>
<tr>
<th>Semester 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>AGM104</td>
<td>Electricity 4</td>
</tr>
<tr>
<td>AGM107</td>
<td>Gas Engine Rebuild 7</td>
</tr>
<tr>
<td>AGM113</td>
<td>Hydraulics I 3</td>
</tr>
<tr>
<td>COM781</td>
<td>Written Communication in the Workplace -OR- 3</td>
</tr>
<tr>
<td>ENG105</td>
<td>Composition I 3</td>
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**Total Credits 17**

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<td>AGM333</td>
<td>Electronics 3</td>
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<td>PSY102</td>
<td>Human and Work Relations -OR- 3</td>
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<td>PSY111</td>
<td>Introduction to Psychology -OR- 3</td>
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<td>SOC110</td>
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**Total Credits 17**

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**Program Contacts**

**Department Secretary**  
Dianne Lellig  
Butler Hall 104  
319-296-4011  
Email me

**Program Advisors**  
Randy Rinkenberger  
Butler Hall 121  
319-296-2329 ext.1118  
Email me

Wes Gielau  
Butler Hall 121  
319-296-2329 ext.1327  
Email me

**Dean**  
Ray Beets  
Butler Hall 104-A  
319-296-4042  
Email me
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### Math Electives

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<tr>
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<td>Math for Liberal Arts</td>
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<td>MAT122</td>
<td>College Algebra</td>
<td>5</td>
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<tr>
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<td>Precalculus</td>
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<tr>
<td>MAT219</td>
<td>Calculus III</td>
<td>4</td>
</tr>
</tbody>
</table>

View Course Descriptions

College Catalog | Next Page >
Automotive Technology

The Automotive Technology program prepares students for a career in the vast field of automotive repair. In auto education classes, students gain hands-on experience in testing and diagnosing, engine drivability diagnosis, automatic transmissions, gas engines, suspension, alignment, brakes, and basic electricity.

Automotive service technicians must continually adapt to changing technology as vehicle components and systems become increasingly sophisticated.

Accreditation
The Automotive Technology program is A.S.E. Master Certified in all eight areas of curriculum by the National Automotive Technician Education Foundation (NATEF).

Transfer Information
Hawkeye's Power Technology Department has a block articulation agreement with the University of Northern Iowa Department of Industrial Technology. For more information, contact a program advisor.
Automotive Technology Careers

Graduates are working in automotive dealerships, independent automotive shops, service stations, car manufacturers, and national automotive service centers.

Other areas graduates may find employment include:

- auto service
- electrical repair
- auto service management
- wheel alignment
- auto repair shops
- heating and air conditioning
- rental repair
- heavy engine repair
- recreational vehicle repair
- automatic transmissions
- motorcycle repair
- drivability engine performance
- power boat repair
- small engine repair

Placement
Starting Wages - $23,000 - $35,500 per year*

*Source: Iowa Workforce Development

Employers

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<tr>
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<tr>
<td>Armour Swift-Eckrich</td>
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<tr>
<td>Dan Deery Motor Co.</td>
<td>Cedar Falls, IA</td>
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<tr>
<td>John Deere Tractor Works</td>
<td>Waterloo, IA</td>
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<td>Krueger Chrysler Village</td>
<td>Waverly, IA</td>
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<tr>
<td>Waterloo Auto Parts</td>
<td>Waterloo, IA</td>
</tr>
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</table>

Program Contacts

Department Secretary
Dianne Lellig
Butler Hall 104
319-296-4011
Email me

Program Advisors
Brian Thomas
Butler Hall 109
319-296-2329 ext.1325
Email me

William Koch
Butler Hall 109
319-296-2329 ext.1759
Email me

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me

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Automotive Technology Admission Requirements

1. Be a high school graduate or equivalent.
   
   High School Diploma Verification Process.

2. Apply at Hawkeye.

3. Meet basic skill competencies in reading, writing, and math.

   Basic skill competencies assessment provides information about your academic skills in reading, writing, and math. This information will be used to determine your acceptance, course selection, and registration.

   For general admission to Hawkeye Community College, students must provide assessment scores in reading, math, and writing.

   College success courses may be required if your assessment score indicates additional help is needed.

   For course placement recommendations, based on your assessment score, review the Assessment Scores and Course Equivalences.

   **Accepted Assessments**
   - ACT
   - COMPASS
   - ASSET
   - SAT
   - ACCUPLACER (effective Spring 2014)

   **Previouis College Experience**
   Assessment may be waived based on previous college course work in reading, math, and writing. Send your official college transcripts to the Admissions office for evaluation.
Automotive Technology Courses

Award: Associate of Applied Science (AAS)
Program Start: Fall only

The Automotive Technology program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

<table>
<thead>
<tr>
<th>Semester 1</th>
<th></th>
<th>Semester 2</th>
<th></th>
<th>Semester 3</th>
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<tbody>
<tr>
<td>AUT106 Introduction to Automotive Technology</td>
<td>AUT307 Automotive Manual Transmissions/Transaxles</td>
<td>AUT537 Automotive Advanced Brake Systems</td>
<td>AUT704 Automotive Heating and Air Conditioning</td>
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<tr>
<td>AUT109 Introduction to Automotive Technology II</td>
<td>AUT404 Automotive Suspension and Steering</td>
<td>AUT106 Introduction to Automotive Technology</td>
<td>AUT704 Automotive Heating and Air Conditioning</td>
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<tr>
<td>AUT164 Automotive Engine Repair</td>
<td>AUT643 Automotive Starting, Charging, and Electrical</td>
<td>AUT842 Automotive Computerized Engine Controls</td>
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<td>AUT504 Automotive Brake Systems</td>
<td>AUT643 Automotive Starting, Charging, and Electrical</td>
<td>PSY102 Human and Work Relations -OR-</td>
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<td>AUT610 Automotive Electrical I</td>
<td>AUT643 Automotive Starting, Charging, and Electrical</td>
<td>PSY111 Introduction to Psychology -OR-</td>
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<td>MAT772 Applied Math -OR-</td>
<td>AUT643 Automotive Starting, Charging, and Electrical</td>
<td>SOC110 Introduction to Sociology</td>
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Total Credits 19

Automotive courses are four weeks long. Students take one to two classes at a time throughout the semester.
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**Semester 4**

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<td>AUT315</td>
<td>Automotive Differentials and 4-Wheel Drive</td>
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<tr>
<td>AUT631</td>
<td>Automotive Electronics</td>
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<td>AUT827</td>
<td>Automotive Ignition Systems</td>
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<td>SPC101</td>
<td>Fundamentals of Oral Communication</td>
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**Math Electives**

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<tr>
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<td>Calculus III</td>
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</tbody>
</table>
Collision Repair and Refinishing

The Collision Repair and Refinishing program provides students with the training and knowledge needed for entry into the various collision, refinishing, auto body and repair fields such as auto frame/unibody technician, auto body painter/refinisher, collision specialist, estimator, and auto body management. Students are provided with classroom and hands-on experience studying comprehensive applications in auto body and repair/refinishing. Students will learn paint techniques on Hawkeye’s state-of-the-art virtual paint system.

Transfer Information
Hawkeye’s Power Technology department has a block articulation agreement with the University of Northern Iowa Department of Industrial Technology. For more information, contact a program advisor.
Collision Repair and Refinishing Careers

Graduates of the Collision Repair and Refinishing program have a wide variety of career opportunities including:

- body shop manager *
- auto body specialist
- vehicle restoration
- collision repair
- aircraft refinishing
- automotive customizing
- heavy truck body repair
- auto insurance adjuster *
- auto appraiser *
- frame specialist
- painter
- motorcycle painter
- auto body product salesperson
- auto salvage business

* Requires additional course work.

Placement
Starting Wages - $24,500 - $39,000 per year*

*Source: Iowa Workforce Development

Employers

<table>
<thead>
<tr>
<th>Company</th>
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<tbody>
<tr>
<td>Black Hawk Auto Refinishers</td>
<td>LaPorte City, IA</td>
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<tr>
<td>Deery Brothers Collision Center</td>
<td>Cedar Falls, IA</td>
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<tr>
<td>Dick Witham Crossroads Ford</td>
<td>Waterloo, IA</td>
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<tr>
<td>Drostie's Auto Care</td>
<td>Waterloo, IA</td>
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<tr>
<td>Dunlap Motors</td>
<td>Independence, IA</td>
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<tr>
<td>Iowa Auto Rebuilders</td>
<td>Waterloo, IA</td>
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<tr>
<td>Palau &amp; Sons</td>
<td>Manchester, IA</td>
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<tr>
<td>Roskamp Champion</td>
<td>Waterloo, IA</td>
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<tr>
<td>Rydell Chevrolet, Mitsubishi, Inc.</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>Terex Cranes, Inc.</td>
<td>Waverly, IA</td>
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</table>
Collision Repair and Refinishing Admission Requirements

1. Be a high school graduate or equivalent.
   High School Diploma Verification Process.

2. Apply at Hawkeye.

3. Meet basic skill competencies in reading, writing, and math.
   Basic skill competencies assessment provides information about your academic skills in reading, writing, and math. This information will be used to determine your acceptance, course selection, and registration.

   For general admission to Hawkeye Community College, students must provide assessment scores in reading, math, and writing.

   College success courses may be required if your assessment score indicates additional help is needed.

   For course placement recommendations, based on your assessment score, review the Assessment Scores and Course Equivalences.

   **Accepted Assessments**
   - ACT
   - COMPASS
   - ASSET
   - SAT
   - ACCUPLACER (effective Spring 2014)

   **Previous College Experience**
   Assessment may be waived based on previous college course work in reading, math, and writing. Send your official college transcripts to the Admissions office for evaluation.

Hawkeye's Equal Opportunity Statement
Collision Repair and Refinishing Courses

**Award:** Associate of Applied Science (AAS)  
**Program Start:** Fall only  
**Enrollment Status:** Full-time only

The **AAS degree program** requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

<table>
<thead>
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<th>Semester 1</th>
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<tr>
<td>CRR306  Introduction to Collision Repair</td>
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<td>6</td>
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<tr>
<td>CRR806  Introduction to Refinishing</td>
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<td>MAT772  Applied Math -OR- Math Elective</td>
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<td>CRR331  Basic Collision Procedures</td>
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<td>CRR836  Refinishing II</td>
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<td>PSY102  Human and Work Relations -OR- PSY111 Introduction to Psychology -OR- SOC110 Introduction to Sociology</td>
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<td>CRR877</td>
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</table>

**Total Credits 14**
Collision Repair and Refinishing – Diploma Courses

**Award:** Diploma  
**Program Start:** Fall only  
**Enrollment Status:** Full-time only  

The Diploma program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

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<table>
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<tr>
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<th>Credits</th>
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</tr>
<tr>
<td>CRR806</td>
<td>Introduction to Refinishing</td>
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<tr>
<td>MAT772</td>
<td>Applied Math -OR- Math Elective</td>
<td>3</td>
</tr>
<tr>
<td>SPC101</td>
<td>Fundamentals of Oral Communication</td>
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**Total Credits 18**

### Semester 2

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>COM781</td>
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<tr>
<td>ENG105</td>
<td>Composition I</td>
<td>3</td>
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<tr>
<td>CRR331</td>
<td>Basic Collision Procedures</td>
<td>6</td>
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<td>CRR836</td>
<td>Refinishing II</td>
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<tr>
<td>PSY102</td>
<td>Human and Work Relations -OR-</td>
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### Semester 3

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<thead>
<tr>
<th>Course Code</th>
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<tr>
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### Math Electives

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<tr>
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<tr>
<td>MAT134</td>
<td>Trigonometry and Analytic Geometry</td>
<td>3</td>
</tr>
<tr>
<td>MAT156</td>
<td>Statistics</td>
<td>3</td>
</tr>
<tr>
<td>MAT210</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MAT216</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MAT219</td>
<td>Calculus III</td>
<td>4</td>
</tr>
</tbody>
</table>

[View Course Descriptions]
The Construction Equipment Operation program prepares students to become entry-level equipment operators. Students receive the hands-on training needed to operate construction equipment and machines used for earth and materials moving. They will work with wheel loaders, skid steer loaders, dump trucks, flatbed transport trailers, compact excavators, backhoes, and track machines. Students will also learn about pre-operational inspection, personal protective equipment, job site safety practices, blueprint reading, construction site preparation, and equipment maintenance.

Students train and test to obtain a Commercial Driver’s License (CDL). Our instructors are trained and state certified to teach the Federal Motor Carrier Safety Administration standards for tractor-trailer drivers and are Third Party Commercial License Testers for the State of Iowa. Federal and state laws require intrastate drivers must be at least 18 years of age.

Experience and Training
The Construction Equipment Operation program provides an eight-week Workplace Experience. This allows students to gain real-work experience at a job site and ensures they develop the skills they need to succeed on the job.

Transfer Options
This program transitions nicely into other construction related programs, including Sustainable Construction and Design and Civil and Construction Engineering Technology. For more information, contact a program advisor.
Construction Equipment Operation Careers

Graduate may find employment as construction equipment operators for:

- commercial and residential building contractors
- trenching and excavation contractors
- county, state, and interstate road construction contractors
- road maintenance departments

Starting Wages: $30,000 - $40,000*

*Source: Iowa Workforce Development

Potential Employers
This program's advisory committee members and other construction and transportation companies may hire graduates.

<table>
<thead>
<tr>
<th>Company</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Altofer Inc.</td>
<td>Cedar Falls, IA</td>
</tr>
<tr>
<td>Baker Concrete and Excavating</td>
<td>Clermont, IA</td>
</tr>
<tr>
<td>Benton's Ready Mixed Concrete</td>
<td>Cedar Falls, IA</td>
</tr>
<tr>
<td>Benton's Sand &amp; Gravel Inc.</td>
<td>Cedar Falls, IA</td>
</tr>
<tr>
<td>Don Gardner Construction Co.</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>Don Schmitz &amp; Sons Inc.</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>Peterson Contractors Inc.</td>
<td>Reinbeck, IA</td>
</tr>
<tr>
<td>Stickfort Construction Corporation</td>
<td>Hudson, IA</td>
</tr>
<tr>
<td>Vieth Construction Corporation</td>
<td>Cedar Falls, IA</td>
</tr>
</tbody>
</table>

Program Contacts

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Program Contact
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Training Center
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Ray Beets
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Construction Equipment Operation Admission Requirements

1. Be a high school graduate or equivalent.
   
   High School Diploma Verification Process.

2. Apply at Hawkeye.

3. Meet basic skill competencies in reading, writing, and math.

   Basic skill competencies assessment provides information about your academic skills in reading, writing, and math. This information will be used to determine your acceptance, course selection, and registration.

   For general admission to Hawkeye Community College, students must provide assessment scores in reading, math, and writing.

   College success courses may be required if your assessment score indicates additional help is needed.

   For course placement recommendations, based on your assessment score, review the Assessment Scores and Course Equivalences.

Accepted Assessments

- ACT
- COMPASS
- ASSET
- SAT
- ACCUPLACER (effective Spring 2014)

Previous College Experience

Assessment may be waived based on previous college course work in reading, math, and writing. Send your official college transcripts to the Admissions office for evaluation.

Hawkeye's Equal Opportunity Statement
Construction Equipment Operation Courses

**Award:** Diploma  
**Program Start:** Summer only  
**Enrollment Status:** Full-time only

The Construction Equipment Operation program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

*If you are a current student* your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

**Program Note**
Before the start of classes you must have:
- a valid driver’s license with a good driving record
- a stable work history

During the first week of classes you must complete:
- a DOT physical examination
- a DOT drug test with negative results

### Semester 1 – Summer

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEQ100</td>
<td>Introduction to Construction Equipment Operation</td>
<td>1</td>
</tr>
<tr>
<td>HEQ102</td>
<td>Preoperational Inspection</td>
<td>2</td>
</tr>
<tr>
<td>HEQ104</td>
<td>Equipment Maintenance I</td>
<td>2</td>
</tr>
<tr>
<td>HEQ105</td>
<td>Skid Steer Operation</td>
<td>3</td>
</tr>
<tr>
<td>HEQ106</td>
<td>Compact Excavator Operation</td>
<td>3</td>
</tr>
<tr>
<td>HEQ107</td>
<td>Wheel Loader Operation</td>
<td>2</td>
</tr>
</tbody>
</table>

Courses will meet for 12 weeks.

### Semester 2 – Fall

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CON108</td>
<td>Construction Safety</td>
<td>1</td>
</tr>
<tr>
<td>CON131</td>
<td>Site Layout and Blueprint Reading</td>
<td>1</td>
</tr>
<tr>
<td>HEQ108</td>
<td>Backhoe Operation</td>
<td>3</td>
</tr>
<tr>
<td>HEQ109</td>
<td>All Terrain Lifts Operation</td>
<td>2</td>
</tr>
<tr>
<td>HEQ114</td>
<td>Track Equipment Operation</td>
<td>3</td>
</tr>
<tr>
<td>MAT772</td>
<td>Applied Math -OR-</td>
<td>3</td>
</tr>
<tr>
<td>MAT110</td>
<td>Math for Liberal Arts -OR-</td>
<td>3</td>
</tr>
<tr>
<td>COM781</td>
<td>Written Communication in the Workplace -OR-</td>
<td>3</td>
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</table>

**Total Credits 13**
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG105</td>
<td>Composition I -OR-</td>
<td>3</td>
</tr>
<tr>
<td>COM730</td>
<td>Communications</td>
<td>3</td>
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<tr>
<td>TDT126</td>
<td>Commercial License Preparation</td>
<td>3</td>
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<tr>
<td>TDT128</td>
<td>Driving Skills Development</td>
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**Total Credits 19**

<table>
<thead>
<tr>
<th>Semester 3 – Spring</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HEQ110</td>
<td>Support Equipment Operation</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>HEQ111</td>
<td>Jobsite Certifications</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>HEQ113</td>
<td>Equipment Maintenance II</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>HEQ905</td>
<td>Workplace Experience</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>TDT100</td>
<td>Interpersonal Relations</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

**Total Credits 14**

Courses will meet for the first 8 weeks and Workplace Experience will meet for the last 8 weeks of the semester.

College Catalog | Next Page >
Diesel Truck Technology

The Diesel Truck Technology program prepares students to become proficient while developing the skills for service and repair procedures on gasoline and diesel trucks. Students train in a number of areas including repair and maintenance of internal combustion engines, diesel fuel systems, hydraulics, power train, and electrical/electronic systems.

Transfer Information
Hawkeye's Power Technology department has a block articulation agreement with the University of Northern Iowa Department of Industrial Technology. For more information, contact a program advisor.
Diesel Truck Technology Careers

Graduates work in truck stops, heavy equipment shops, consumer product dealerships, independent repair shops, engine machine shops as truck and engine troubleshooters, and as maintenance personnel. Other areas our graduates may work in include dispatch, service manager, DOT inspector, independent shop, and repair technician in diesel, heavy equipment, and recreation vehicles - RV, boat, and train.

Placement
Starting Wages: $30,000 - $40,000 per year*

*As reported by the Power Technology department.

Employers

<table>
<thead>
<tr>
<th>Altorfer Machinery</th>
<th>Cedar Rapids, IA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cedar Valley Corp</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>Don's Truck Sales</td>
<td>Fairbank, IA</td>
</tr>
<tr>
<td>Harrison Truck Center</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>Hawkeye International Truck</td>
<td>Cedar Rapids, IA</td>
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<tr>
<td></td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>Peterbilt</td>
<td>Des Moines, IA</td>
</tr>
<tr>
<td>Warren Transportation</td>
<td>Waterloo, IA</td>
</tr>
</tbody>
</table>

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Diesel Truck Technology Admission Requirements

1. Be a high school graduate or equivalent. 
   *High School Diploma Verification Process.*

2. **Apply at Hawkeye.**

3. Meet basic skill competencies in reading, writing, and math.

   Basic skill competencies assessment provides information about your academic skills in reading, writing, and math. This information will be used to determine your acceptance, course selection, and registration.

   For general admission to Hawkeye Community College, students must provide assessment scores in reading, math, and writing.

   College success courses may be required if your assessment score indicates additional help is needed.

   For course placement recommendations, based on your assessment score, review the Assessment Scores and Course Equivalences.

   **Accepted Assessments**
   
   ◦ ACT
   ◦ COMPASS
   ◦ ASSET
   ◦ SAT
   ◦ ACCUPLACER (effective Spring 2014)

   **Previous College Experience**

   Assessment may be waived based on previous college course work in reading, math, and writing. Send your official college transcripts to the Admissions office for evaluation.

Hawkeye’s Equal Opportunity Statement
Diesel Truck Technology Courses

**Award:** Associate of Applied Science (AAS)

**Program Start:** Fall only

**Enrollment Status:** Full-time only

The Diesel Truck Technology program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

*If you are a current student* your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Total Credits 17</th>
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</thead>
<tbody>
<tr>
<td>AGM104 Electricity</td>
<td>4</td>
</tr>
<tr>
<td>AGM107 Gas Engine Rebuild</td>
<td>7</td>
</tr>
<tr>
<td>AGM113 Hydraulics I</td>
<td>3</td>
</tr>
<tr>
<td>COM781 Written Communication in the Workplace -OR-</td>
<td>3</td>
</tr>
<tr>
<td>ENG105 Composition I</td>
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</table>

<table>
<thead>
<tr>
<th>Semester 2</th>
<th>Total Credits 17</th>
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</thead>
<tbody>
<tr>
<td>DSL377 Diesel Engine Rebuild</td>
<td>7</td>
</tr>
<tr>
<td>DSL447 Diesel Fuel Systems</td>
<td>7</td>
</tr>
<tr>
<td>MAT772 Applied Math -OR-</td>
<td>3</td>
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<tr>
<td>Math Elective</td>
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</table>

<table>
<thead>
<tr>
<th>Semester 3</th>
<th>Total Credits 17</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGM224 Hydraulics II</td>
<td>4</td>
</tr>
<tr>
<td>AGM327 Equipment Maintenance</td>
<td>7</td>
</tr>
<tr>
<td>AGM333 Electronics</td>
<td>3</td>
</tr>
<tr>
<td>PSY102 Human and Work Relations -OR-</td>
<td>3</td>
</tr>
<tr>
<td>PSY111 Introduction to Psychology -OR-</td>
<td>3</td>
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<tr>
<td>SOC110 Introduction to Sociology</td>
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</table>

<table>
<thead>
<tr>
<th>Semester 4</th>
<th>Total Credits 17</th>
</tr>
</thead>
</table>

**Program Contacts**

**Department Secretary**
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Wes Gielau
Butler Hall 121
319-296-2329 ext.1327
Email me

**Dean**
Ray Beets
Butler Hall 104-A
319-296-4042
Email me
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGM408</td>
<td>Power Transfer Systems</td>
<td>7</td>
</tr>
<tr>
<td>DSL807</td>
<td>Diesel Truck Equipment Repair</td>
<td>7</td>
</tr>
<tr>
<td>SPC101</td>
<td>Fundamentals of Oral Communication</td>
<td>3</td>
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</tbody>
</table>

Math Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT110</td>
<td>Math for Liberal Arts</td>
<td>3</td>
</tr>
<tr>
<td>MAT122</td>
<td>College Algebra</td>
<td>5</td>
</tr>
<tr>
<td>MAT128</td>
<td>Precalculus</td>
<td>4</td>
</tr>
<tr>
<td>MAT134</td>
<td>Trigonometry and Analytic Geometry</td>
<td>3</td>
</tr>
<tr>
<td>MAT156</td>
<td>Statistics</td>
<td>3</td>
</tr>
<tr>
<td>MAT210</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MAT216</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MAT219</td>
<td>Calculus III</td>
<td>4</td>
</tr>
</tbody>
</table>

View Course Descriptions

Total Credits 17

View Course Descriptions

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The Truck Driving and Transportation Training program prepares students to become professional over-the-road and local truck drivers. Students train and test to obtain a Commercial Driver's License and assume positions in this profession.

Using a new 23-acre driving range along with the latest, most-advanced driving simulators, students are individually instructed as they develop their driving skills, gain profession knowledge, and study lawful regulations vital to the trucking industry. Our instructors are trained and state certified to teach the Federal Motor Carrier Safety Administration standards for tractor-trailer drivers and are Third Party Commercial License Testers for the State of Iowa. Federal and State laws require interstate drivers be at least 21 years of age and intrastate drivers must be at least 18 years of age.

**Accreditation**
This program is approved by the Iowa Department of Transportation, Iowa Department of Education, the Iowa Motor Truck Association, and the Iowa Job Training Program.

**Transfer Information**
Students in the Truck Driving and Transportation program interested in continuing their education should contact a program advisor.
Truck Driving and Transportation Training Careers

Graduates of the Truck Driving and Transportation Training program are trained as professional truck drivers. Many have entered the related fields as DOT officers, shipping and terminal managers, freight agents, freight brokers, log clerks, traffic specialists, spotters, dispatchers, and transportation sales persons.

Placement
Starting Wages: $26,000 - $38,000 per year*

Iowa Workforce Development forecasts more than 1,660 job openings each year for truck drivers in Iowa through the year 2020.

*Source: Iowa Workforce Development

Employers

<table>
<thead>
<tr>
<th>Company</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cedar Valley Corp</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>Denver Construction</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>Gray Transportation Company</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>Keim TS</td>
<td>Fort Dodge, IA</td>
</tr>
<tr>
<td>Martin Bros. Distributing</td>
<td>Cedar Falls, IA</td>
</tr>
<tr>
<td>Peterson Contractors, Inc.</td>
<td>Reinbeck, IA</td>
</tr>
<tr>
<td>Schneider National Carriers</td>
<td>Green Bay, WI</td>
</tr>
<tr>
<td>TransAm Trucking</td>
<td>Olathe, KS</td>
</tr>
<tr>
<td>Werner Enterprises</td>
<td>Omaha, NE</td>
</tr>
</tbody>
</table>

Program Contacts

Department Secretary
Dianne Lellig
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Program Contact
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Regional Transportation Training Center
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Ray Beets
Butler Hall 104-A
319-296-4042
Email me
Truck Driving and Transportation Training Admission Requirements

1. Be a high school graduate or equivalent. 
   High School Diploma Verification Process.

2. **Apply at Hawkeye.**

3. Meet basic skill competencies in reading, writing, and math.
   
   Basic skill competencies assessment provides information about your academic skills in reading, writing, and math. This information will be used to determine your acceptance, course selection, and registration.

   For general admission to Hawkeye Community College, students must provide assessment scores in reading, math, and writing.

   College success courses may be required if your assessment score indicates additional help is needed.

   For course placement recommendations, based on your assessment score, review the Assessment Scores and Course Equivalences.

**Accepted Assessments**
- ACT
- COMPASS
- ASSET
- SAT
- ACCUPLACER (effective Spring 2014)

**Previous College Experience**
Assessment may be waived based on previous college course work in reading, math, and writing. Send your official college transcripts to the Admissions office for evaluation.

Hawkeye's Equal Opportunity Statement

College Catalog | Next Page >
Truck Driving and Transportation Training – 16-Week Certificate Courses

Award: Certificate
Program Start: Fall, Spring, Summer

The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

Program Note
Before the start of classes you must have:
- a valid driver’s license with a good driving record
- a stable work history

During the first week of classes you must complete:
- a DOT physical examination
- a DOT drug test with negative results

<table>
<thead>
<tr>
<th>Semester 1</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>TDT100</td>
<td>Interpersonal Relations</td>
<td>2</td>
</tr>
<tr>
<td>TDT115</td>
<td>Transportation Industry and Driver Regulations</td>
<td>4</td>
</tr>
<tr>
<td>TDT118</td>
<td>Driving Range I</td>
<td>6</td>
</tr>
<tr>
<td>TDT121</td>
<td>Driving Range II</td>
<td>2</td>
</tr>
<tr>
<td>TDT122</td>
<td>Driving Range III</td>
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<tr>
<td>TDT938</td>
<td>Truck Transportation On-the-Job Training</td>
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Total Credits 19

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The Emergency Medical Services (EMS) program prepares students for entry-level positions in the workforce as emergency medical technicians and paramedics. Students gain the knowledge and skills necessary to recognize, assess, and manage medical emergencies in a pre-hospital setting. They learn to evaluate and manage patients with acute traumatic and medical conditions. They're prepared to provide optimal response and care to victims of any emergency, disaster, or mass casualty event. Emergency medical services is a unique combination of public health, public safety, and acute patient care.

The two-year Associate of Applied Science degree in Emergency Medical Services is recommended for individuals who would like to become a paramedic and pursue a management position in emergency medical services.

**Paramedic Certificate Option**

The three-semester Paramedic certificate option is recommended for individuals who are state-licensed emergency medical technicians (EMT) and would like to advance their career as a paramedic.

**Accreditation**

The Emergency Medical Services program is authorized as an EMS training program by the Iowa Department of Public Health, Bureau of Emergency Medical Services (EMS).

The program received a Letter of Review from the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP) and is in the process of obtaining national accreditation by the Commission on Accreditation of Allied Health Education Programs.

**Certification**

Students who successfully complete EMS courses will be eligible to take national certification exams through the National Registry of Emergency Medical Technicians (NREMT).
Continuing Education Options
Hawkeye offers continuing education courses for graduates and professionals to maintain their EMS licenses in the State of Iowa.
Emergency Medical Services Careers

Graduates may find employment working as emergency medical technicians (EMTs) or paramedics in fire departments, hospitals, private ambulance services, air medical services, federal government positions, and private corporations.

Starting Wages: $21,000 - $32,000 per year*

*Source: Iowa Workforce Development

Potential Employers

This program's advisory committee members and other paramedic and EMS services may hire graduates.

<table>
<thead>
<tr>
<th>Covenant Paramedic Service</th>
<th>Waterloo, IA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sartori Paramedic Services</td>
<td>Cedar Falls, IA</td>
</tr>
<tr>
<td>Unity Point - Allen Hospital</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>Waterloo Fire Rescue</td>
<td>Waterloo, IA</td>
</tr>
<tr>
<td>Waverly Health Center Ambulance</td>
<td>Waverly, IA</td>
</tr>
</tbody>
</table>

Program Contacts

Department Secretary
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Program Coordinator
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Dean
Bryan Renfro
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Criminal History Matters

As a future emergency services responder, students need to use good judgment in all areas of their personal, professional, and scholastic interactions and activities; and must keep their records clean. All hospitals, EMS, and fire agencies require background checks for internships, volunteer placements, and employment.

Be aware that character counts and your behavior can sabotage your ability to graduate from this program and your ability to work in the field. Consider what your actions and criminal history says about you….i.e. an OWI conviction indicates that you demonstrate poor judgment by drinking to excess and deciding to drive, which may kill or injure you or another person.

If you want to work in emergency services, avoid these issues:
- Acquiring speeding tickets or safety violation citations.
- Acquiring a suspended driver’s license or citations for driving with a suspended license.
- Participating in underage drinking, using fake ID’s, or buying alcohol for underage persons.
- Use or abuse of prescription drugs, street drugs, club drugs (ecstasy), marijuana, or synthetic drugs.
- Engaging in theft of property, goods, or services.
- Assault or battery related cases.

You will not be employable in emergency services if you have:
- Felony convictions.
- Domestic abuse convictions.
- Placement on an abuse registry (sex offender, child/elder abuse).
- Drug convictions, or history of drug use or abuse (methamphetamine, cocaine, heroin, etc.)

Each agency (city, county, state, or federal) sets their own limits on marijuana use from zero tolerance to a limited amount of use, and factors in how recent the use was.

Ultimately, potential employers will rationalize your behavior by this criteria: If you know or reasonably believe an action is illegal or will cause harm then the best candidate will take responsibility, demonstrate self-control, and not do it.

Lastly, employers will ask our faculty for references. Students need to know that full time faculty and adjunct faculty members are constantly formally and informally assessing students in terms of academic performance, attendance, honesty, professionalism, social skills, maturity, and appearance so that we can make objective assessments when asked. Your interactions count, and we are here to mentor you.
Emergency Medical Services Admission Requirements

1. Be a high school graduate or equivalent.
   
   High School Diploma Verification Process.

2. Apply at Hawkeye.

3. Meet basic skill competencies in reading, writing, and math.

   Basic skill competencies assessment provides information about your academic skills in reading, writing, and math. This information will be used to determine your acceptance, course selection, and registration.

   For general admission to Hawkeye Community College, students must provide assessment scores in reading, math, and writing.

   College success courses may be required if your assessment score indicates additional help is needed.

   For course placement recommendations, based on your assessment score, review the Assessment Scores and Course Equivalences.

   **Accepted Assessments**
   - ACT
   - COMPASS
   - ASSET
   - SAT
   - ACCUPLACER (effective Spring 2014)

   **Previous College Experience**
   Assessment may be waived based on previous college course work in reading, math, and writing. Send your official college transcripts to the Admissions office for evaluation.

Hawkeye's Equal Opportunity Statement
Paramedic Certificate Admission Requirements

Basic Skill Competencies Requirements
Option 1
Score at least the following scores on any combination of the below assessment options:

<table>
<thead>
<tr>
<th>ACT sub scores</th>
<th>COMPASS scores</th>
<th>ASSET scores</th>
<th>ACCUPLACER scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>19 - Reading</td>
<td>82 - Reading</td>
<td>38 - Reading</td>
<td>90 - Reading</td>
</tr>
<tr>
<td>19 - English</td>
<td>65 - Writing</td>
<td>40 - Writing</td>
<td>98 - Sentence Skills</td>
</tr>
<tr>
<td>14 - Math</td>
<td>24 - Pre-Algebra</td>
<td>38 - Numerical</td>
<td>40 - Arithmetic</td>
</tr>
</tbody>
</table>

Applicants can take the ACT assessment or the COMPASS assessment at Hawkeye. Pre-registration is required.

Option 2
Apply to the Associate of Applied Science degree in Emergency Medical Services in order to complete all of the following college success courses with a "C" grade or higher at Hawkeye Community College or comparable courses at another accredited college:

- ENG061 College Preparatory Writing II
- RDG040 College Preparatory Reading III
- MAT045 Fundamentals of Math

Option 3
Any combination of the above fulfilling the basic skills requirements of algebra, reading, and writing.

Admissions Process
1. Apply for admission.
2. Completed applicant files (we have your application, transcripts, and test scores) will be processed as follows:
   a. Applicants who do not meet the program's admission requirements will be sent an admissions inactivation letter.
   b. Applicants meeting all admission requirements will be accepted.
3. We accept approximately 20 students and 10 alternates each Fall Semester. Applicants will be accepted based on the date their completed applicant file. If many students share the same date for completing their applicant files, the application date will be used to prioritize their acceptance.
4. If necessary, alternates will be contacted to fill unconfirmed positions in the program. Alternates will be given priority for the next term.
Emergency Medical Services Courses

Award: Associate of Applied Science (AAS)
Program Start: Fall, Spring, Summer
Enrollment Status: Full-time only

The AAS degree program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

Required Background Screenings
Prior to the first day of classes, you will be required to complete:

• drug screening,
• a criminal background check,
• sex offender registry,
• child abuse registry, and
• dependent adult registry.

Failing a drug screening or background check will result in dismissal from the program.

Program Course Note
You must achieve a minimum "C" grade in all courses that are required to complete the program.

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Total Credits 16</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMS201 Emergency Medical Technician</td>
<td>7</td>
</tr>
<tr>
<td>ENG105 Composition I</td>
<td>GEN ED 3</td>
</tr>
<tr>
<td>SOC110 Introduction to Sociology -OR-</td>
<td>GEN ED 3</td>
</tr>
<tr>
<td>SOC205 Diversity in America</td>
<td>3</td>
</tr>
<tr>
<td>SPC101 Fundamentals of Oral Communication</td>
<td>GEN ED 3</td>
</tr>
<tr>
<td>View Course Descriptions</td>
<td>Total Credits 16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester 2</th>
<th>Total Credits 16</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO163 Essentials of Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>MAT110 Math for Liberal Arts -OR-</td>
<td>GEN ED 3</td>
</tr>
<tr>
<td>MAT156 Statistics</td>
<td>3</td>
</tr>
<tr>
<td>PSY111 Introduction to Psychology</td>
<td>GEN ED 3</td>
</tr>
<tr>
<td>EMS Electives</td>
<td>6</td>
</tr>
<tr>
<td>View Course Descriptions</td>
<td>Total Credits 16</td>
</tr>
<tr>
<td><strong>Semester 3</strong></td>
<td></td>
</tr>
<tr>
<td>----------------</td>
<td>---</td>
</tr>
<tr>
<td>EMS541 Clinical I</td>
<td>3</td>
</tr>
<tr>
<td>EMS619 Airway and Patient Assessment</td>
<td>4</td>
</tr>
<tr>
<td>EMS641 Introduction to Paramedicine</td>
<td>3</td>
</tr>
<tr>
<td>EMS671 Paramedic Pharmacology/Pathophysiology</td>
<td>3</td>
</tr>
<tr>
<td>EMS678 Traumatic Emergencies for the Paramedic</td>
<td>3</td>
</tr>
<tr>
<td><strong>View Course Descriptions</strong></td>
<td><strong>Total Credits 16</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Semester 4</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EMS546 Clinical II</td>
<td>3</td>
</tr>
<tr>
<td>EMS650 Medical and Psychological Emergencies</td>
<td>4</td>
</tr>
<tr>
<td>EMS674 Cardiology for the Paramedic</td>
<td>4</td>
</tr>
<tr>
<td>EMS677 Special Populations for the Paramedic</td>
<td>4</td>
</tr>
<tr>
<td><strong>View Course Descriptions</strong></td>
<td><strong>Total Credits 15</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Semester 5 – Summer</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EMS655 Transition to Paramedic Practice</td>
<td>4</td>
</tr>
<tr>
<td><strong>View Course Descriptions</strong></td>
<td><strong>Total Credits 4</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>EMS Electives</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>COM763 Introduction to Professional Writing</td>
<td>3</td>
</tr>
<tr>
<td>CRJ285 Physical Conditioning for Public Services</td>
<td>2</td>
</tr>
<tr>
<td>EMS114 Emergency Medical Responder</td>
<td>2</td>
</tr>
<tr>
<td>FIR139 Fire Fighter I</td>
<td>4</td>
</tr>
<tr>
<td>FIR214 Legal Aspects of the Emergency Services</td>
<td>3</td>
</tr>
<tr>
<td>FIR300 Principles of Fire and EMS Administration</td>
<td>3</td>
</tr>
<tr>
<td><strong>View Course Descriptions</strong></td>
<td></td>
</tr>
</tbody>
</table>
Paramedic Certificate Courses

Award: Certificate
Program Start: Fall only
Enrollment Status: Full-time only

The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

Required Background Screenings
Prior to the first day of classes, you will be required to complete:
  • drug screening,
  • a criminal background check,
  • sex offender registry,
  • child abuse registry, and
  • dependent adult registry.

Failing a drug screening or background check will result in dismissal from the program.

Required Certification
Prior to the first day of classes, you will be required to be a certified emergency medical technician (EMT) and present a certificate from the Iowa Bureau of EMS.

Program Course Note
You must achieve a minimum "C" grade in all courses that are required to complete the program.

<table>
<thead>
<tr>
<th>Semester 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EMS541</td>
<td>Clinical I</td>
</tr>
<tr>
<td>EMS619</td>
<td>Airway and Patient Assessment</td>
</tr>
<tr>
<td>EMS641</td>
<td>Introduction to Paramedicine</td>
</tr>
<tr>
<td>EMS671</td>
<td>Paramedic Pharmacology/Pathophysiology</td>
</tr>
<tr>
<td>EMS678</td>
<td>Traumatic Emergencies for the Paramedic</td>
</tr>
</tbody>
</table>

Total Credits 16

<table>
<thead>
<tr>
<th>Semester 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EMS546</td>
<td>Clinical II</td>
</tr>
<tr>
<td>EMS650</td>
<td>Medical and Psychological Emergencies</td>
</tr>
<tr>
<td>EMS674</td>
<td>Cardiology for the Paramedic</td>
</tr>
<tr>
<td>EMS677</td>
<td>Special Populations for the Paramedic</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------------------------</td>
</tr>
<tr>
<td>EMS655</td>
<td>Transition to Paramedic Practice</td>
</tr>
</tbody>
</table>

Total Credits 15
The Fire Science program is designed to prepare students for entry-level technical or administrative careers in fire service. Students develop the knowledge and understanding of building construction, management, and fire behaviors and hazards. They receive hands-on training in fire suppression, protection, prevention, investigation, and safety techniques and are prepared to react appropriately in emergency situations.

This program follows the Fire and Emergency Services Higher Education (FESHE) curriculum by the U.S. Fire Administration. Designed in cooperation with local fire department officials, the program provides education paths for individuals seeking a fire services career and for practicing firefighters to advance their careers. Credit may be awarded toward the degree for existing certifications and verified industry trainings.

Certification
Students who successfully complete the FIR139 Fire Fighter I course will be eligible to take the International Fire Service Accreditation Congress (IFSAC) Firefighter I certification through the Iowa Department of Public Safety, Iowa Fire Service Training Bureau.
Fire Science Careers

Graduates may find employment working as firefighters, fire investigators, fire insurance inspectors, or fire protection specialists in city and county fire departments, state and federal governments, private insurance or safety companies, and private fire protection companies.

Starting Wages: $24,500 - $40,500 per year*

*Source: Iowa Workforce Development
Criminal History Matters

As a future emergency services responder, students need to use good judgment in all areas of their personal, professional, and scholastic interactions and activities; and must keep their records clean. All hospitals, EMS, and fire agencies require background checks for internships, volunteer placements, and employment.

Be aware that character counts and your behavior can sabotage your ability to graduate from this program and your ability to work in the field. Consider what your actions and criminal history says about you….i.e. an OWI conviction indicates that you demonstrate poor judgment by drinking to excess and deciding to drive, which may kill or injure you or another person.

If you want to work in emergency services, avoid these issues:

• Acquiring speeding tickets or safety violation citations.
• Acquiring a suspended driver’s license or citations for driving with a suspended license.
• Participating in underage drinking, using fake ID’s, or buying alcohol for underage persons.
• Use or abuse of prescription drugs, street drugs, club drugs (ecstasy), marijuana, or synthetic drugs.
• Engaging in theft of property, goods, or services.
• Assault or battery related cases.

You will not be employable in emergency services if you have:

• Felony convictions.
• Domestic abuse convictions.
• Placement on an abuse registry (sex offender, child/elder abuse).
• Drug convictions, or history of drug use or abuse (methamphetamine, cocaine, heroin, etc.)

Each agency (city, county, state, or federal) sets their own limits on marijuana use from zero tolerance to a limited amount of use, and factors in how recent the use was.

Ultimately, potential employers will rationalize your behavior by this criteria: If you know or reasonably believe an action is illegal or will cause harm then the best candidate will take responsibility, demonstrate self-control, and not do it.

Lastly, employers will ask our faculty for references. Students need to know that full time faculty and adjunct faculty members are constantly formally and informally assessing students in terms of academic performance, attendance, honesty, professionalism, social skills, maturity, and appearance so that we can make objective assessments when asked. Your interactions count, and we are here to mentor you.
Fire Science Admission Requirements

1. Be a high school graduate or equivalent. 
   High School Diploma Verification Process.

2. Apply at Hawkeye.

3. Meet basic skill competencies in reading, writing, and math.

   Basic skill competencies assessment provides information about your academic skills in reading, writing, and math. This information will be used to determine your acceptance, course selection, and registration.

   For general admission to Hawkeye Community College, students must provide assessment scores in reading, math, and writing.

   College success courses may be required if your assessment score indicates additional help is needed.

   For course placement recommendations, based on your assessment score, review the Assessment Scores and Course Equivalences.

Accepted Assessments

- ACT
- COMPASS
- ASSET
- SAT
- ACCUPLACER (effective Spring 2014)

Previous College Experience

Assessment may be waived based on previous college course work in reading, math, and writing. Send your official college transcripts to the Admissions office for evaluation.

Hawkeye's Equal Opportunity Statement
## Fire Science Courses

**Award:** Associate of Applied Science (AAS)  
**Program Start:** Fall, Spring, Summer  
**Enrollment Status:** Full-time or part-time.

The Fire Science program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

### Semester 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC110</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>ENG105</td>
<td>Composition I -OR-</td>
<td>3</td>
</tr>
<tr>
<td>COM781</td>
<td>Written Communication in the Workplace</td>
<td>3</td>
</tr>
<tr>
<td>FIR130</td>
<td>Fire Prevention</td>
<td>3</td>
</tr>
<tr>
<td>FIR213</td>
<td>Principles of Emergency Services</td>
<td>3</td>
</tr>
<tr>
<td>MAT110</td>
<td>Math for Liberal Arts -OR-</td>
<td>3</td>
</tr>
<tr>
<td>MAT156</td>
<td>Statistics -OR-</td>
<td>3</td>
</tr>
<tr>
<td>MAT772</td>
<td>Applied Math</td>
<td>3</td>
</tr>
</tbody>
</table>

**View Course Descriptions**  
**Total Credits** 15

### Semester 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM122</td>
<td>Introduction to General Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>FIR124</td>
<td>Building Construction</td>
<td>3</td>
</tr>
<tr>
<td>FIR127</td>
<td>Fire Behavior and Combustion</td>
<td>3</td>
</tr>
<tr>
<td>FIR149</td>
<td>Fire Protection Hydraulics and Water Supply</td>
<td>3</td>
</tr>
<tr>
<td><strong>Fire Science Electives</strong></td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

**View Course Descriptions**  
**Total Credits** 16

### Semester 3 – Summer

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIR139</td>
<td>Fire Fighter I</td>
<td>4</td>
</tr>
<tr>
<td>FIR180</td>
<td>Hazardous Materials Chemistry</td>
<td>3</td>
</tr>
</tbody>
</table>

**View Course Descriptions**  
**Total Credits** 7
### Semester 4

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIR235</td>
<td>Fire Investigation I</td>
<td>3</td>
</tr>
<tr>
<td>FIR400</td>
<td>Emergency Safety and Survival</td>
<td>3</td>
</tr>
<tr>
<td>PSY102</td>
<td>Human and Work Relations -OR-</td>
<td>3</td>
</tr>
<tr>
<td>PSY111</td>
<td>Introduction to Psychology -OR-</td>
<td>3</td>
</tr>
<tr>
<td>SOC110</td>
<td>Introduction to Sociology</td>
<td>3</td>
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</table>

**Fire Science Electives**

Total Credits 15

### Semester 5

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRJ285</td>
<td>Physical Conditioning for Public Services</td>
<td>2</td>
</tr>
<tr>
<td>POL111</td>
<td>American National Government</td>
<td>3</td>
</tr>
<tr>
<td>SPC101</td>
<td>Fundamentals of Oral Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

**Fire Science Electives**

Total Credits 14

**Fire Science Electives**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMS114</td>
<td>Emergency Medical Responder</td>
<td>2</td>
</tr>
<tr>
<td>EMS201</td>
<td>Emergency Medical Technician</td>
<td>7</td>
</tr>
<tr>
<td>FIR145</td>
<td>Fire Strategies and Tactics</td>
<td>3</td>
</tr>
<tr>
<td>FIR200</td>
<td>Occupational Safety/Health in Emergency Services</td>
<td>3</td>
</tr>
<tr>
<td>FIR214</td>
<td>Legal Aspects of the Emergency Services</td>
<td>3</td>
</tr>
<tr>
<td>FIR236</td>
<td>Fire Investigation II</td>
<td>3</td>
</tr>
<tr>
<td>FIR300</td>
<td>Principles of Fire and EMS Administration</td>
<td>3</td>
</tr>
</tbody>
</table>

View Course Descriptions
Police Science

The Police Science program provides students with knowledge of the criminal justice system, its operations, and purpose. Students are also trained to perform public safety, law enforcement, and criminal investigation tasks.

Students gain knowledge and critical problem-solving skills through coursework focusing on the criminal justice system, criminology, juvenile delinquency, sociology, psychology, criminal and constitutional law, and ethical and current issues. Students also receive practical training in basic police operations, traffic collision investigation, applied criminalistics, and defensive tactics.

Students learn to safely and skillfully shoot live firearms using indoor and outdoor ranges and MILO, a virtual firearms simulator.

Instructors have on-the-job experience and academic training.

Police Academy

Graduates, newly hired by a department, are eligible to attend the New Officer 8-Week Basic Level II Certification Academy. Hawkeye is designated as a Regional Law Enforcement Training Facility by the Iowa Law Enforcement Academy.

Transfer Information

The Police Science program has articulation agreements with Upper Iowa University and Mount Mercy University allowing graduates to enter with junior status. For more information, contact a program advisor.
Police Science Careers

Graduates are eligible to work in a variety of capacities within the criminal justice system including city and county law enforcement agencies and corporate security. Additional education and experience may be required to work in specific capacities at the state and federal level.

Placement
The ability to be hired by a law enforcement agency may be impaired by any arrest record, juvenile or adult.

Starting Wages: $38,000 - $49,000 per year*

*Source: Iowa Workforce Development

Employers
- Police Departments throughout Iowa
- County Sheriff's Offices throughout Iowa
- Iowa State Patrol
- Iowa Department of Motor Vehicle Enforcement
- Local, State, and Federal Law Enforcement Agencies throughout the United States

Program Contacts

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Email me

Program Advisors
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Bryan Renfro
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319-296-4427
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Criminal History Matters

As a future criminal justice professional, students need to use good judgment in all areas of their personal, professional, and scholastic interactions and activities; and must keep their records clean. Criminal justice organizations require background checks for internships, volunteer placements, and employment; which will include adult and juvenile civil and criminal issues, official and informal contacts with police, and character references. Employment will also hinge on the successful completion of a polygraph, credit check, and psychological evaluation.

Be aware that character counts and your behavior can sabotage your ability to graduate from this program and your ability to work in the field. Consider what your actions and criminal history says about you….i.e. an OWI conviction indicates that you demonstrate poor judgment by drinking to excess and deciding to drive, which may kill or injure you or another person. Remember your personal behaviors (what you didn’t get caught for) will be revealed during the polygraph, and what you do privately (when no one is watching or supervising) speaks volumes as to the true content of one’s character.

If you want to work in criminal justice avoid these issues:

- Acquiring speeding tickets or safety violation citations.
- Acquiring a suspended driver’s license or citations for driving with a suspended license.
- Participating in underage drinking, using fake ID’s, or buying alcohol for underage persons.
- Use or abuse of prescription drugs, street drugs, club drugs (ecstasy), marijuana, or synthetic drugs.
- Engaging in theft of property, goods, or services.

You will not be employable in criminal justice if you have:

- Felony convictions.
- Domestic abuse convictions.
- Placement on an abuse registry (Sex offender, child/elder abuse).
- Drug convictions, or history of drug use or abuse (methamphetamine, cocaine, heroin, etc.)
  Each agency (city, county, state, or federal) sets their own limits on marijuana use from zero tolerance to a limited amount of use, and factors in how recent the use was.
- Weapons violations.

Ultimately, criminal justice employers will rationalize your behavior by this criteria: If you know or reasonably believe an action is illegal or will cause harm then the best candidate will take responsibility, demonstrate self-control, and not do it.

Lastly, employers will ask our faculty for references. Students need to know that full time faculty and adjunct faculty members are constantly formally and informally assessing students in terms of academic performance, attendance, honesty, professionalism, social skills, maturity, and appearance so that we can make objective assessments when asked. Your interactions count, and we are here to mentor you.
Police Science Admission Requirements

1. Be a high school graduate or equivalent.  
   High School Diploma Verification Process.

2. Apply at Hawkeye.

3. Meet basic skill competencies in reading, writing, and math.

Basic skill competencies assessment provides information about your academic skills in reading, writing, and math. This information will be used to determine your acceptance, course selection, and registration.

For general admission to Hawkeye Community College, students must provide assessment scores in reading, math, and writing.

College success courses may be required if your assessment score indicates additional help is needed.

For course placement recommendations, based on your assessment score, review the Assessment Scores and Course Equivalences.

Accepted Assessments

- ACT
- COMPASS
- ASSET
- SAT
- ACCUPLACER (effective Spring 2014)

Previous College Experience

Assessment may be waived based on previous college course work in reading, math, and writing. Send your official college transcripts to the Admissions office for evaluation.

Hawkeye's Equal Opportunity Statement
Police Science Courses

Award: Associate of Applied Science (AAS)
Program Start: Fall, Spring
Enrollment Status: Full-time or part-time.

The Police Science program requires a mix of general education and hands-on courses. The following list of courses is from the current catalog year, organized in the suggested sequence of study for a full-time student, and is subject to change.

Part-time students, visit with a program advisor for a modified sequence of study.

If you are a current student your program requirements may be different than those listed for the current catalog year. View your Program Evaluation to see your specific program requirements and to search and register for classes.

Felony Conviction?
Students convicted of a felony will not be allowed to enroll in the Firearms and Practicum courses and will not graduate from the Police Science program. Learn how your criminal history matters.

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<th>Semester 1</th>
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<td>CRJ252</td>
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<td>CRJ285</td>
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View Course Descriptions

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### Semester 3

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<td>CRJ151</td>
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<td>CRJ254</td>
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<td>CRJ282</td>
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<td>CRJ315</td>
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**Total Credits 18**

### Semester 4

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<tr>
<td>CRJ141</td>
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<td>CRJ952</td>
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**Total Credits 13**


**Associate of General Studies (AGS) Degree**

The Associate of General Studies (AGS) degree is awarded upon completion of an individualized course of study that is primarily designed to gain a broad educational background rather than the pursuit of a specific college major or professional/technical program. It is intended as a flexible course of study and may include a combination of liberal arts courses and career program courses. This degree may meet the requirements for those students with specific needs or goals. A minimum of 60 credit hours is required for the AGS degree.

Keep in mind that since this degree is individualized, it may not meet the needs for transfer or job placement as effectively as other degree options.

**Completing an AGS Degree**

To be considered for an Associate of General Studies degree, you must work with an academic advisor. Your academic advisor will help determine if the AGS degree is right for you, develop goals, and plan a course of study.
Course Descriptions

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ACC111 Introduction to Accounting — 3 credits
This course covers the terminology, concepts, and procedures involved in financial accounting for businesses. Topics include accounting for cash and accounting for payroll.

Lecture hours: 48
Lab/Clinic hours:

Prior to Fall 2006 the course number was BS103U

ACC115 Introduction to Accounting — 4 credits
This course presents the fundamental concepts, procedures, and applications of the accounting cycle for service and merchandising businesses. The proprietorship form of ownership is studied. Topics include the special journals, payroll accounting, and accounting for cash.

Lecture hours: 64
Lab/Clinic hours:

Prior to Fall 2006 the course number was AC103U

ACC116 Introduction to Accounting II — 4 credits
This course is a continuation of ACC-115 Introduction to Accounting emphasizing the principles of accrual accounting. Emphasis is placed on accounting for corporations and a manufacturing business. Topics include accounting for receivables, inventory, and long-term assets.

Lecture hours: 64
Lab/Clinic hours:

Prerequisite(s): ACC115 Introduction to Accounting or ACC131 Principles of Accounting I

Course Fee:

Prior to Fall 2006 the course number was AC135U

ACC131 Principles of Accounting I — 4 credits
This course is an introduction to basic financial accounting concepts and procedures for service and merchandising businesses. Topics included are the accounting cycle; accounting systems; financial statements; and accounting for cash, receivables, payables, inventories, plant assets; partnerships and corporations.

Lecture hours: 64
ACC132 Principles of Accounting II — 4 credits
This course continues to address topics in financial accounting that began in ACC131 Principles of Accounting I. Primary emphasis is on managerial accounting and the corporate form of ownership. Topics include accounting for bonds, the statement of cash flows, and financial statement analysis. Managerial accounting topics include job order and process cost systems, cost-volume-profit analysis, budgeting, and standard cost systems. Capital investment analysis and activity-based costing are also addressed.

Lecture hours: 64
Lab/Clinic hours:

Prerequisite(s): A minimum grade of C- in ACC131 Principles of Accounting I

ACC190 Financial Analysis — 2 credits
This course provides the student with a general framework of corporate finance. The emphasis is limited to analysis and evaluation of alternative choices for investments and working capital. The objective is accomplished through assigned readings, lectures, completed assignments and projects, as well as through quizzes and tests.

Lecture hours: 32
Lab/Clinic hours:

Prerequisite(s): A minimum grade of ‘C’ in ACC132 Principles of Accounting II OR a minimum grade of ‘C’ in ACC116 Introduction to Accounting II.

ACC222 Cost Accounting — 4 credits
This course provides an introduction to accounting concepts of manufacturing systems. In addition job order and process costing systems, profit planning, and control programs are emphasized.

Lecture hours: 64
Lab/Clinic hours:

Prerequisite(s): ACC132 Principles of Accounting II or ACC116 Introduction to Accounting II

ACC231 Intermediate Accounting I — 4 credits
This course emphasizes accounting theory as students work with detailed applications of various balance sheet and income statement accounts. Applicable generally accepted accounting principles are emphasized as they relate to each subject area. Time values of money concepts are also introduced.

Lecture hours: 64
Lab/Clinic hours:

Prerequisite(s): ACC116 Introduction to Accounting II or ACC132 Principles of Accounting II
ACC232 Intermediate Accounting II — 4 credits
This course continues the detailed applications that began in ACC-231 Intermediate Accounting I. Emphasis is on corporate debt and equity. The statement of cash flows is addressed extensively as well as the accounting for business combinations. The course will conclude with financial statement analysis.

Lecture hours: 64
Lab/Clinic hours:

Prerequisite(s): ACC231 Intermediate Accounting I

Course Fee:

Prior to Fall 2006 the course number was AC236U

ACC250 Review for the LPA Exam — 3 credits
This course reviews and summarizes the accounting, law, and ethics information received in the accounting program over four semesters to prepare students for the licensing exam.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): A minimum grade of 'C' in ACC132 Principles of Accounting II, or a minimum grade of 'C' in ACC116 Introduction to Accounting II, or instructor approval.

Course Fee:

ACC265 Income Tax Accounting — 4 credits
Emphasis is placed on the understanding of the federal tax system. The student will gain hands on experience preparing the most current tax forms for sole proprietorship businesses and individuals. Tax planning is addressed as it relates to the current and forthcoming year. Students will be provided with an opportunity to use computer software to prepare returns.

Lecture hours: 64
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was AC131U

ACC311 Computer Accounting — 3 credits
This course presents an introduction to a computerized accounting system. Two popular software packages will be used to accumulate, classify, and summarize data about a business.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of "C" in ACC115 Introduction to Accounting or ACC131 Principles of Accounting I.

Course Fee: $30.00

Prior to Fall 2006 the course number was AC133U

ACC360 Accounting Spreadsheets — 2 credits
This course provides the student with an in depth working knowledge of how to use an integrated spreadsheet program to assist in routine jobs. Writing formulas is emphasized along with planning and creating spreadsheets.
ACC801 Payroll Accounting — 1 credits
This course involves the study of the federal, as well as the state forms and regulations concerning payroll. Students will be completing a comprehensive payroll simulation.

Lecture hours: 0
Lab/Clinic hours: 32
Prerequisite(s): ACC131 Principles of Accounting I or ACC115 Introduction to Accounting

ACC803 Accounting Simulations — 1 credits
This course provides hands-on experience using a manual and computerized simulation of an accounting cycle. The proprietorship form of business, accrual accounting, and other concepts learned in the first accounting course will be the basis for the simulation.

Lecture hours: 0
Lab/Clinic hours: 32
Prerequisite(s): ACC131 Principles of Accounting I or ACC115 Introduction to Accounting

ACC924 Honors Project — 1 credits
This course involves in-depth independent research on an approved topic under supervision of a faculty member. Upon project's completion, results will be shared with community of peers and faculty. May be taken for up to 3 credits.

Lecture hours: 16
Lab/Clinic:

ADM105 Introduction to Keyboarding — 1 credits
This course presents the technique and development of touch keyboarding. Basic functions of a computer are introduced with emphasis on learning alphabetic, numeric and symbolic keys, and the numeric keypad. The minimum competency of 25 net words per minute, with no more than five errors per timing, on three five-minute timed writings is required.

Lecture hours: 0
Lab/Clinic hours: 32

ADM108 Keyboarding Skill Development — 1 credits
The skill building process is continued. This course assists students to improve speed and accuracy. The
minimum competency of 40 net words per minute, with no more than five errors per timing, on 3 five-minute timed writings is required.

Lecture hours: 0
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of D- in ADM105 Introduction to Keyboarding.

Course Fee:

Prior to Fall 2006 the course number was BS130U

**ADM131 Office Calculators — 1 credits**
The 10-key electronic calculator is used in business related applications. The emphasis is on speed and accuracy as the student performs the basic arithmetical procedures.

Lecture hours: 0
Lab/Clinic hours: 32

Course Fee: $30.00

Prior to Fall 2006 the course number was BS139U

**ADM148 Transcription — 2 credits**
This course builds and strengthens skills in machine transcription. Students are provided instruction for using transcription equipment with emphasis on language skills, including spelling, capitalization, punctuation, and word usage. Emphasis will be on editing, proofreading, and mailability of documents.

Lecture hours: 16
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of D- in BCA134 Word Processing and ADM105 Introduction to Keyboarding.

Co-requisite(s): A minimum grade of D- in ADM159 Proofreading and Editing.

Course Fee:

**ADM159 Proofreading and Editing — 3 credits**
This course emphasizes the applications designed to sharpen skills in detecting and correcting errors in written communications including memos, letters, reports, databases, presentation slides, advertisements, and spreadsheets. It also introduces the student to proofreading and editing skills necessary when using current and new technology (i.e. email messages and voice recognition).

Lecture hours: 48
Lab/Clinic hours: 

Course Fee:

**ADM162 Office Procedures — 3 credits**
This course provides preparation for employment in today’s rapidly changing office environment by exposing a variety of topics including the working environment, oral and written communication, and administrative support services.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): BCA134 Word Processing and ADM159 Proofreading and Editing

Course Fee:
Prior to Fall 2006 the course number was BS135U

ADM180 Administrative Management — 3 credits
Administrative management is studied including organization, site location, office layout, environment, communication processes, job analysis, job evaluation, salary administration, performance appraisal, and employer/employee relations.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): ADM108 Keyboarding Skill Development

Course Fee:

Prior to Fall 2006 the course number was SE237U

ADM200 Legal Document Processing — 3 credits
This course familiarizes students with various fields of law and the proper preparation of legal documents utilized in each. Students will apply various skills in preparing legal documents, including transcription skills, communication skills, problem-solving skills, and technical skills.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): ADM105 Introduction to Keyboarding and BCA134 Word Processing and ADM148 Transcription

Course Fee:

Prior to Fall 2006 the course number was SE230U

ADM203 Legal Office Concepts and Procedures — 3 credits
This course provides an understanding of the legal office environment, offers a broad spectrum of legal concepts and procedures, and presents legal documents by fields of law.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): BCA134 Word Processing

Course Fee:

Prior to Fall 2006 the course number was SE132U

ADM208 Legal Terminology — 3 credits
This course is designed to familiarize students with the most commonly used legal terms in today’s workplace. It emphasizes correct spelling and defining of legal terms.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

ADM222 Career Capstone — 3 credits
Career skills, techniques, and strategies that will assist the student in securing and maintaining employment are developed. Students will learn the fundamentals of the job search process, including interviewing skills and employment correspondence. International, legal, and ethical issues as well as technological developments affecting workplace communication skills are incorporated throughout the course. An individual capstone portfolio will be created. It is required that this course be taken the semester in which the student will be graduating.
Lecture hours: 48
Lab/Clinic hours:

Other Requirements: This course can only be taken in the term in which the student will be completing their program of study.

Course Fee: $30.00

Prior to Fall 2006 the course number was BS231U

**ADN121 Transition to Professional Nursing — 2 credits**
This course focuses on the associate degree nurse as transition occurs from the licensed practical nurse role to the registered nurse role. Major units in this course include an overview of ethical, legal and professional role/responsibilities of the registered nurse, history of nursing, nursing process and critical thinking, as well as an introduction to APA writing style and research.

Lecture hours: 32
Lab/Clinic hours:

Other Requirements: Admission without conditions to the Associate Degree Nursing program for the current semester.

Course Fee: $37.00

Prior to Fall 2006 the course number was AN203U

**ADN122 Advanced Nursing Skills — 2 credits**
This course provides supervised practice of advanced nursing skills in a laboratory setting. The student is assisted in gaining skill and accuracy through demonstration, supervised practice, and evaluation.

Lecture hours: 16
Lab/Clinic hours: 32

Prerequisite(s): Admission to the Associate Degree Nursing Program.

Co-requisite(s): A minimum grade of 'C' in ADN123 Physical Assessment and a minimum grade of 'C' in ADN531 Advanced Adult Health Nursing I.

Course Fee:

Prior to Fall 2006 the course number was AN207U

**ADN123 Physical Assessment — 2 credits**
This course covers basic physical assessment with history taking and data collection, analysis and planning for care, nursing interventions and documentation.

This course begins the three year time limit for completion of the ADN curriculum.

Lecture hours: 16
Lab/Clinic hours: 32

Prerequisite(s): Admission to the Associate Degree Nursing program and a minimum grade of ‘C’ in BIO163 Essentials of Anatomy and Physiology.

Co-requisite(s): A minimum grade of ‘C’ in ADN122 Advanced Nursing Skills and a minimum grade of ‘C’ in ADN531 Advanced Adult Health Nursing I.

Course Fee:

Prior to Fall 2006 the course number was AN202U

**ADN281 Diet Management — 1 credits**
This course continues the study of food nutrients and body utilization for good health. There is emphasis on special diets, food exchanges, socio-economic and cultural implications of nutrition.

Lecture hours: 16
Lab/Clinic hours:

Prerequisite(s): Admission without conditions to the Associate Degree Nursing Program for the current semester. PNN270 Introduction to Nutrition

Course Fee:

Prior to Fall 2006 the course number was AN251U

**ADN331 Issues in Nursing Management — 2 credits**
This course focuses on the study and application of the managerial and leadership aspects of professional nursing, including leadership styles, delegation, budgeting, group process, supervision, and evaluation. Preparation for the licensing exam is also included.

Lecture hours: 32
Lab/Clinic hours:

Prerequisite(s): All first semester ADN nursing courses (with the exception of ADN281 Diet Management), ADN121 Transition to Professional Nursing, ADN122 Advanced Nursing Skills, ADN123 Physical Assessment, ADN531 Advanced Adult Health Nursing I

Course Fee: $70.00

Prior to Fall 2006 the course number was AN231U

**ADN410 Advanced Nursing in OB and PEDS — 5 credits**
This course provides comprehensive care for childbearing and pediatric clients in wellness and illness with special emphasis on health interruptions and variations and the nursing process needed to meet these variations. Clinical experiences are provided in selective acute care and community settings.

Lecture hours: 48
Lab/Clinic hours: 96

Prerequisite(s): Completion of all first semester ADN nursing courses (with the exception of ADN281 Diet Management) ADN121 Transition to Professional Nursing, ADN122 Advanced Nursing Skills, ADN123 Physical Assessment, ADN531 Advanced Adult Health Nursing I

Other Requirements: Valid Iowa LPN license

Course Fee:

Prior to Fall 2006 the course number was AN236U

**ADN477 Psychiatric Nursing — 5 credits**
This course focuses on the study and application of modern concepts of psychiatric nursing and effective interactions with people. The student will respond therapeutically to clients with maladaptive behaviors through utilization of the nursing process by applying the principles of mental health and psychiatric nursing.

Lecture hours: 48
Lab/Clinic hours: 96

Prerequisite(s): ADN123 Physical Assessment and ADN121 Transition to Professional Nursing

Other Requirements: Valid Iowa LPN License

Course Fee:
Prior to Fall 2006 the course number was AN255U

**ADN531 Advanced Adult Health Nursing I — 6 credits**
This course is a study of the concepts of health and illness and of the nursing process in providing comprehensive nursing care for adults requiring advanced medical and surgical care. The content includes a review of shock, stress, immunity, fluid, electrolyte, acid base, eye, ear, respiratory, endocrine, reproductive, and musculoskeletal disorders. Clinical experiences are provided in selected acute care settings.

Lecture hours: 64  
Lab/Clinic hours: 96  
Course Fee: $476.00

Prior to Fall 2006 the course number was AN209U

**ADN532 Advanced Adult Health Nursing II — 6 credits**
This course is a continuation of ADN-531 Advanced Adult Health Nursing I. Emphasis is placed on the nursing process in providing comprehensive care of the complex medical-surgical adult patient. The content includes cardiac, peripheral vascular, digestive, hematologic, oncologic, urinary, and neurologic disorders. Clinical experiences are provided in acute care and community settings. Selected experience in the nurse manager role is included.

Lecture hours: 64  
Lab/Clinic hours: 96  
Prerequisite(s): Completion of all first semester ADN nursing courses (with the exception of ADN281 Diet Management) with a C or higher, ADN121 Transition to Professional Nursing, ADN122 Advanced Nursing Skills, ADN123 Physical Assessment, ADN531 Advanced Adult Health Nursing I  
Other Requirements: Valid Iowa LPN License  
Course Fee: 

Prior to Fall 2006 the course number was AN233U

**ADN924 Honors Project — 1 credits**
This course involves in-depth independent research on an approved topic under supervision of a faculty member. Upon project's completion, results will be shared with community of peers and faculty. May be taken for up to 3 credits.

Lecture hours: 16  
Lab/Clinic hours: 

Course Fee: 

AGA114 Principles of Agronomy — 3 credits
This course presents introductory principles of plant-soil-climate relationships in crop production, plant anatomy, crop plant classification and identification, crop physiology, climate, soils, soil water, tillage and seeding, plant breeding, seed and grain quality, weeds, insects, crop diseases, crop management, harvesting and storage. Global Positioning and Geographic Information Systems in crop systems is discussed.

Lecture hours: 32  
Lab/Clinic hours: 32  
Course Fee: $44.00

Prior to Fall 2006 the course number was AP110T

**AGA154 Fundamentals of Soil Science — 3 credits**
This course presents information on soils and soil fertility, land use, soil formation, soil types, soil testing, soil
physical characteristics, soil classes, primary nutrients, secondary nutrients, micro-nutrients, fertilizer materials, fertilizing, and using soil test information. The use of Global Positioning and Geographic Information Systems in recording soil data is covered.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was AP102T

**AGA214 Cash Grains — 3 credits**
This course introduces the production of Iowa's main cash crops; corn and soybeans. Units include: crop history, crop development, seed selection, fertilization, insect and weed control, harvesting, grain handling, marketing, storage, and the economic importance of each crop. New and experimental production practices are discussed for practical application.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was AP131T

**AGA284 Pesticide Application Certification — 3 credits**
This course will introduce students to the safe use of agricultural chemicals. Safety precautions and prevention of chemical exposure will be stressed when discussing types of chemicals, usage, application, equipment, and mixing. First aid and responding to chemical contamination will also be discussed. This course prepares the students for taking the Iowa Commercial Pesticide Applicators Certification Exam.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee: $46.00

Prior to Fall 2006 the course number was HT135T

**AGA376 Integrated Pest Management — 3 credits**
This course is designed to make application and use of some materials learned in other courses. Decision making as it deals with the total cropping plan is stressed. An individual will determine from observation weed problems, plant populations, disease problems, insect problems, and do yield checks to make recommendations for handling any problems.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was AG154T

**AGA924 Honors Project — 1 credits**
This course involves in-depth independent research on an approved topic under supervision of a faculty member. Upon project's completion, results will be shared with community of peers and faculty. May be taken for up to 3 credits.

Lecture hours: 16
Lab/Clinic hours:

Course Fee:

**AGB101 Agricultural Economics — 3 credits**
This course introduces students to basic concepts in economics including various aspects of an economy-like agriculture, industry, population, food supply, government policies, and physical environmental affect on each other and the economy as a whole. Resources used in agricultural production, organization price determination, supply, demand, and profit modernization are studied.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was AG206T

AGB111 Agriculture Enterprise Lab — 1 credits
Agriculture Enterprise lab offers students the opportunity to gain hands-on educational experiences by working at the Hawkeye farm laboratory under the supervision of an instructor. Students will be assigned projects with specific enterprises. They will be responsible for completing them in a timely manner for a limited time. This course may be repeated up to three times.

Lecture hours: 0
Lab/Clinic hours: 48

Course Fee:

Prior to Fall 2006 the course number was AG109T

AGB235 Introduction to Agriculture Markets — 3 credits
This course provides the student with an introduction to grain merchandising and farm marketing. It is taught from the standpoint of a country elevator; however, the same principles apply to many other aspects of the grain industry. We emphasize the elevators relationship and responsibility to its customers. The basic fundamentals of marketing are discussed along with the more advanced aspects of managing basis positions, basis trading, and managing risks. Some prior knowledge of country elevators and the futures market is useful but not required.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was AG130T

AGB303 Agriculture Leadership — 3 credits
This course is designed to enhance students' abilities in the area of leadership. The course includes activities that enable students to develop skills in communication, problem solving, committee work, and parliamentary procedure. Students may be involved in many local, state, and nationally organized activities.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was AG156T

AGB331 Entrepreneurship in Agriculture — 3 credits
This course introduces students to basic principles of organizing, financing, and managing a business. Including product merchandising and marketing, personnel management, credits, and risk management.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee: $32.00
**AGB336 Agricultural Selling — 3 credits**
This course presents aspects of the sales process including: selling success, types of sales questions, creating the selling climate, motivation, attitude, referral prospecting, no referral prospecting, phone sales, sales presentations and demonstrations, qualifying the prospect, overcoming objectiveness, closing twelve power closes, and sales paper work.

Lecture hours: 32  
Lab/Clinic hours: 32  
Course Fee:

**AGB466 Agricultural Finance — 3 credits**
This course introduces the principles and practices employed by today's agriculture and business lending institutions. Instruments used in financing ag production and ag business are covered. Areas of study include interest, investing, payroll, taxes, and financial instruments.

Lecture hours: 32  
Lab/Clinic hours: 32  
Course Fee:

**AGC103 Ag Computer — 3 credits**
This course will introduce students to the hardware, software, word processing, database and spreadsheet programs, as well as various utility software. Applications of various agricultural management uses are covered throughout. Networks, telecommunication, Global Positioning, and Geographic Information Systems are also introduced.

Lecture hours: 32  
Lab/Clinic hours: 32  
Course Fee:

**AGH107 Horticulture Lab — 1 credits**
Horticulture lab offers students the opportunity to work in the Hawkeye horticulture laboratory under the supervision of an instructor. Students will be assigned projects and will be responsible for completing them on a timely basis for a limited time. This course may be repeated up to five times.

Lecture hours: 0  
Lab/Clinic hours: 48  
Course Fee:

**AGH112 Introduction to Turfgrass Management — 3 credits**
This course introduces the types of grass species and their uses; their growth habits, and development as a unique plant species. Proper culture and establishment procedures are studied, as well as their importance to the environment.

Lecture hours: 48  
Lab/Clinic hours:  
Course Fee:
**AGH119 Herbaceous Plant Materials — 2 credits**
This course covers identification, adaptation, cultural characteristics and uses of selected annuals, perennials and bulbs suitable for use in landscape and gardens in Iowa. Students will identify the plants covered and will also be required to incorporate them into four flower garden design projects.

Lecture hours: 32
Lab/Clinic hours:

Course Fee:

**AGH122 Woody Plant Materials — 2 credits**
This course presents identification and cultural characteristics of commonly used woody outdoor plants used in landscape in Iowa including many native plants. Recognition of scientific names of plants, identification, and common names are also included.

Lecture hours: 16
Lab/Clinic hours: 32

Course Fee:

**AGH134 Greenhouse Production — 3 credits**
This course explores various employment opportunities in the greenhouse career field. Production theories and practices are studied. Emphasis is on proper techniques of watering, potting, transplanting, fertilizing, and various other aspects of greenhouse production. Cultural practices used to produce the most common greenhouse crops are also covered.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

**AGH140 Equipment Operations — 2 credits**
This course introduces the general care and use of horticultural equipment in turf and landscape maintenance and construction. Emphasis is on operation, preventative maintenance performed by the operator, daily lubrications, and minor adjustments. Students will also mount and dismount accessories used on the equipment. Safe operation of machinery is emphasized.

Lecture hours: 16
Lab/Clinic hours: 32

Course Fee:

**AGH143 Equipment Repair — 3 credits**
This course is an introduction to basic maintenance of mechanical, hydraulic, and electrical systems of gasoline and diesel engines. Maintenance, up-keep, and repair techniques on reel mowers, rotary mowers, and other horticulture equipment are covered.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:
Prior to Fall 2006 the course number was HT209U

**AGH145 Landscape Construction — 2 credits**
This course is an introduction to the basics of landscape construction including classroom instruction and hands-on experience in the operation of small landscape equipment. Tree, shrub, and turfgrass establishment and maintenance, and maintenance of existing plants and structures are covered. Students will have the opportunity to experience the construction of walkways, retaining walls, beams or other landscape features.

Lecture hours: 16  
Lab/Clinic hours: 32  

Course Fee:

**AGH152 Landscape Design Techniques — 3 credits**
Concepts and applications of landscape design principles are utilized in completing landscape plans. Emphasis is placed on the design principles for preparing, evaluating, and selling landscape plans.

Lecture hours: 32  
Lab/Clinic hours: 32  

Course Fee: $36.00

**AGH161 Irrigation Systems — 3 credits**
This course presents various types of irrigation equipment: heads, valves, controllers, pipe, and the accessories used in an irrigation system. The course presents the function of water, its relationships to plants and soil, and an introduction to water hydraulics.

Lecture hours: 32  
Lab/Clinic hours: 32  

Course Fee:

Prior to Fall 2006 the course number was HT238T

**AGH211 Advanced Turfgrass Management — 3 credits**
This course provides opportunities for students to learn techniques of golf course management and operation. Proper construction of specific golf course areas such as: greens, trees, bunkers, basic golf course design is presented. Budgets, irrigation, maintenance and an integrated pest management program are presented.

Lecture hours: 48  
Lab/Clinic hours:  

Course Fee: $35.00

Prior to Fall 2006 the course number was HT237T

**AGH221 Principles of Horticulture — 3 credits**
This course provides students with an overall view of how man utilizes horticulture plant materials. Topics covered are fruits, vegetables, ornamental plants and their proper use and care. Proper culture and environmental conditions are also included.

Lecture hours: 48  
Lab/Clinic hours:  

Course Fee: $125.00

Prior to Fall 2006 the course number was HT134T

**AGH222 Plant Propagation I — 2 credits**
This course covers plant propagation procedures commonly done in the late winter and spring. Starting of seed and grafting will be covered. Propagation theory and history will be discussed.
AGH270 Nursery Production — 2 credits
This course introduces the student to theory and techniques of springtime nursery production. Students will plant trees, shrubs and evergreens in the horticulture lab nursery, and participate in other nursery cultural practices, such as: weed control, pruning, cultivation, etc.

Lecture hours: 16
Lab/Clinic hours: 32

Course Fee: $50.00

Prior to Fall 2006 the course number was HT106T

AGH273 Nursery Management — 3 credits
Basic management functions are applied to a plant nursery. Advertising, harvest and sale of trees and shrubs from the school nursery provide students with hands-on experiences. Chemical selection for pest control in a nursery will also be covered. Students will be involved in planning the planting of the horticulture lab nursery.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee: $71.00

Prior to Fall 2006 the course number was HT149U

AGH280 Botany for Horticulture — 3 credits
This course presents the basic structure of plant life, plant nomenclature, botanical terminology, the function of plant parts: cells, tissues, roots, and leaves. The physiological processes of plant life; osmosis, photosynthesis, respiration, transpiration, reproduction and the basic principles of genetics, and the plants metabolism is discussed.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee: $50.00

Prior to Fall 2006 the course number was HT131T

AGH281 Arboriculture — 3 credits
This course is a study of tree culture with emphasis on propagation, pruning, transplanting, pest control, urban environment concerns and recognition of hazards and liabilities. Methods of evaluation of values of trees also studied.

Lecture hours: 48
Lab/Clinic hours: 32

Course Fee: $50.00

Prior to Fall 2006 the course number was HT131T

AGH292 Garden Center Management — 3 credits
In this course display, promotion, and merchandising in the modern garden center will be stressed. Problems of distribution functions of marketing and their costs will be studied. Management's role in organizing a business and financial planning will be discussed.

Lecture hours: 48
Lab/Clinic hours: 32

Course Fee: $50.00
Course Fee:

**AGH322 Plant Propagation II — 2 credits**  
This course covers summer and fall plant propagation practices. Softwood cuttings of outdoor shrubs and tree budding will be discussed. Fall seed collection and winter cuttings of woody plants will also be covered. General aspects of other forms of propagation and propagation equipment will be presented.

Lecture hours: 32  
Lab/Clinic hours:

Course Fee: $33.00

Prior to Fall 2006 the course number was HT139T

**AGH400 Athletic Field Maintenance — 3 credits**  
This course studies specific sport facilities utilizing turf grasses including football, soccer, field hockey, baseball, and softball fields. Techniques of operation, management, maintenance, budgets, construction, and irrigation will be covered.

Lecture hours: 32  
Lab/Clinic hours: 32

Course Fee:

**AGH425 Grounds Maintenance — 3 credits**  
This course introduces basic maintenance practices used on a golf course; golf course etiquette, procedures such as top dressing, aerifying, mowing, verticutting, fertilizing, watering, and changing cups on a green. The course introduces maintenance practices used in sports complexes, parks and recreation areas, and commercial and industrial grounds.

Lecture hours: 32  
Lab/Clinic hours: 32

Course Fee:

**AGH610 Spanish for the Green Industry — 3 credits**  
This is a practical Spanish Language course that provides immediate access to functional language skills for non-Spanish-speakers in the "green industry." Special sections are devoted to agriculture, landscaping, grounds keeping, nurseries, and turf management terminology. This course emphasizes the most important commands, questions, and phrases pertinent to daily interactions between non-Spanish-speakers and Spanish-speaking individuals. In addition, this course addresses cultural aspects of working with Spanish speaking populations such as employment, medical, and safety issues. No prior language of Spanish is necessary.

Lecture hours: 48  
Lab/Clinic hours:

Course Fee:

**AGM104 Electricity — 4 credits**  
This course is an in-depth study of theory in the diagnosing and repair of electrical components and circuitry.

Lecture hours: 48  
Lab/Clinic hours: 48

Course Fee:

Prior to Fall 2006 the course number was PT105U

**AGM107 Gas Engine Rebuild — 7 credits**  
This course covers the theory of gas engines and the construction, diagnosis, and repair of all the systems.
Fuel, ignition, and supportive systems are also included.

Lecture hours: 80
Lab/Clinic hours: 96

Course Fee:

Prior to Fall 2006 the course number was PT103U

**AGM113 Hydraulics I — 3 credits**
This course covers theory and symbols of hydraulic components. Testing and repair of components is performed according to manufacturer's specifications.

Lecture hours: 32
Lab/Clinic hours: 48

Course Fee:

Prior to Fall 2006 the course number was PT104U

**AGM126 Diesel Engine Sub Systems — 3 credits**
A study of diesel fuel systems, air intake systems, cooling systems, and exhaust systems.

Lecture hours: 16
Lab/Clinic hours: 64

Prerequisite(s): Must be admitted into the Electronics Engineering Technology program with a Mechanical emphasis.

Course Fee:

**AGM128 Fundamentals of Diesel Engine — 5 credits**
Students are introduced to diesel engine application, design, construction, theory, and operating principles of diesel engines. This course also covers diagnosis, disassembly, and assembly of diesel engines.

Lecture hours: 32
Lab/Clinic hours: 144

Prerequisite(s): A minimum grade of 'D-' in EGT144 Fluid Power Applications.
Completion of the Electronics Engineering Technology program with a mechanical emphasis.

Course Fee:

**AGM142 Diesel Power Transfer Systems — 4 credits**
Students are introduced to application, design, construction, theory, and operating principles of transmission, differentials, and final drives.

Lecture hours: 16
Lab/Clinic hours: 96

Prerequisite(s): A minimum grade of 'D-' in EGT144 Fluid Power Applications
Must be or have been admitted to the Electronics Engineering Technology program with a mechanical emphasis.

Course Fee:

**AGM224 Hydraulics II — 4 credits**
This course covers theory and symbols of hydraulic systems. Testing and repair of hydraulic systems is performed with the use of meters and gauges for proper diagnosis.

Lecture hours: 48
Lab/Clinic hours: 48

Prerequisite(s): AGM107 Gas Engine Rebuild, AGM113 Hydraulics I, AGM104 Electricity, DSL447 Diesel Fuel Systems, DSL377 Diesel Engine Rebuild

Course Fee:

Prior to Fall 2006 the course number was PT202U

**AGM327 Equipment Maintenance — 7 credits**
This course presents background on theory of operation, diagnosis, and repair of brakes and suspension systems. Students gain knowledge and skill in performing preventive maintenance, service, and inspection of equipment. Arc welding and flame cutting will also be taught. Instruction will also cover use of computers for maintenance scheduling.

Lecture hours: 80
Lab/Clinic hours: 96

Prerequisite(s): AGM107 Gas Engine Rebuild, AGM113 Hydraulics I, AGM104 Electricity, DSL447 Diesel Fuel Systems, DSL377 Diesel Engine Rebuild

Course Fee: $79.00

Prior to Fall 2006 the course number was PT200U

**AGM333 Electronics — 3 credits**
This course is a continuing study of electricity in electronic components covering circuitry, diagnosis, and repair.

Lecture hours: 32
Lab/Clinic hours: 48

Prerequisite(s): AGM107 Gas Engine Rebuild, AGM113 Hydraulics I, AGM104 Electricity, DSL447 Diesel Fuel Systems, DSL377 Diesel Engine Rebuild

Course Fee:

Prior to Fall 2006 the course number was PT201U

**AGM408 Power Transfer Systems — 7 credits**
This course is a study of the power train from the clutch through the rear driving axles. Emphasis is placed on clutch types, transmissions, and drive axles. Key goals of the course are failure analysis and troubleshooting malfunctions.

Lecture hours: 80
Lab/Clinic hours: 96

Prerequisite(s): AGM107 Gas Engine Rebuild, AGM113 Hydraulics I, AGM104 Electricity, DSL447 Diesel Fuel Systems, DSL377 Diesel Engine Rebuild

Course Fee:

Prior to Fall 2006 the course number was PT230U

**AGM417 Ag Equipment Repair — 7 credits**
This course is designed to give students the opportunity to apply competencies previously achieved to repair and service projects. Also included is theory and operation, diagnosis, and repair of heating and air conditioning systems. Instruction will also cover use of computers for maintenance scheduling.

Lecture hours: 80
Lab/Clinic hours: 96
Prerequisite(s): AGM107 Gas Engine Rebuild AGM113 Hydraulics I AGM104 Electricity DSL447 Diesel Fuel Systems DSL377 Diesel Engine Rebuild AGM327 Equipment Maintenance AGM333 Electronics AGM224 Hydraulics II

Course Fee:

Prior to Fall 2006 the course number was AE231U

AGM932 Internship — 8 credits
Students will work on-site at a local industry under the direction of a supervisor.
Co-op hours: 512
Lecture hours: 0
Lab/Clinic hours:

Prerequisite(s): A minimum grade of 'D-' in AGM128 Fundamentals of Diesel Engine.
Completion of the Electronics Engineering Technology program with a mechanical emphasis.

Course Fee:

AGN932 Internship — 8 credits
Students will work on-site at a local industry under the direction of a supervisor.
Lecture hours: 0
Lab/Clinic hours:

Prerequisite(s): A minimum grade of 'D-' in AGM128 Fundamentals of Diesel Engine. Completion of the Electronics Engineering Technology program with a mechanical emphasis.

Course Fee:

AGP333 Precision Farming Systems — 3 credits
Fundamental processes of Global Positioning System (GPS) with emphasis on its application to agriculture will be covered. General technical aspects of the GPS satellites, differential correction, and hardware will be covered. The specific application of this technology in agriculture for mapping, navigation, variable rate technology (VRT), and data collection will be discussed and demonstrated on the farm laboratory.
Lecture hours: 32
Lab/Clinic hours: 32
Course Fee:

AGP340 Foundations of GIS and GPS — 3 credits
This course will introduce fundamental processes of Global Positioning System (GPS) including technical aspects of the GPS satellites, differential correction, and hardware. The specific application of this technology for mapping, navigation, variable rate technology (VRT), and data collection will be discussed and demonstrated. Fundamental processes of Geographic Information Systems (GIS) will also be introduced, including file formats, data base management, spatial analysis, and manipulation of data.
Lecture hours: 32
Lab/Clinic hours: 32
Course Fee: $31.00

Prior to Fall 2006 the course number was AF140U

AGP401 Introduction to GIS Software — 1 credits
This course provides a conceptual overview and hands-on experience using the software, giving one the background knowledge to quickly take advantage of Arc GIS Software's powerful display and query capabilities. Students will learn basic Arc GIS Software functionality. Students become familiar with the Arc
GIS Software user interface and use Arc GIS Software to create, edit, display, query, and analyze geographic and tabular data and create maps and charts for use electronically and in print form.

Lecture hours: 16
Lab/Clinic hours:

Prerequisite(s): AGC103 Ag Computer or equivalent

Course Fee:

Prior to Fall 2006 the course number was AF201T

**AGP436 Advanced Precision Farm Hardware — 3 credits**
This course will focus on the installation, operation, and troubleshooting of precision farming hardware components. Students will learn how to install displays, GPS equipment, and various other components used within precision agriculture. Students will properly operate various precision agriculture hardware systems such as displays, variable rate controllers, and GPS equipment. Special attention will be given to training students to troubleshoot problems and learn how to develop cognitive problem solving skills.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

**AGP450 Fundamentals of GIS — 3 credits**
Fundamental processes of Geographic Information Systems (GIS) with emphasis in its application to agriculture will be covered. File formats, database management, spatial analysis, and manipulation of data will be covered thoroughly. Comparisons of GIS and mapping software and conversions between formats will also be discussed. The lab portion will concentrate on using georeferenced data from mapping and yield monitoring to develop maps from which a VRT prescription will be synthesized.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

**AGS113 Survey of the Animal Industry — 3 credits**
This course introduces students to the species and breeds of domestic livestock and development of an appreciation for the principles of livestock production, and issues facing product marketing. Topics include: breeds, basic management, composition, evaluation, and marketing of farm animals and animal products; including beef and dairy cattle, horses, goats, poultry, sheep and swine.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was AS110T

**AGS192 Livestock Judging — 3 credits**
This course advances students’ evaluation skills and prepares them to become competent livestock judges. Students have the opportunity to represent the college at various contests held on local, state, and national levels.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was AS126U
AGS211 Issues Facing Animal Science — 2 credits
This class is an overview of the factors that define contemporary ethical and scientifically based issues facing animal agriculture. Life skills development will be incorporated.

Lecture hours: 32
Lab/Clinic hours:

Course Fee:
Prior to Fall 2006 the course number was AS201T

AGS216 Equine Science — 3 credits
This course presents the basic management and production practices for horses including nutrition, health care, facilities, reproductive management, breeding, and evaluation. The course is designed for students wanting to learn how to care for their own horse or for other owners’ horses as a herdsman or in a stable.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:
Prior to Fall 2006 the course number was AS132U

AGS218 Domestic Animal Physiology — 4 credits
This course is an introduction to the functional anatomy and physiological activities governing the animal body through discussion and observation via video of the various body systems; including cells, senses, nerves, skeletal, circulatory, respiratory, digestive urinary, muscular reproductive, and endocrinology. Fundamentals of identification, prevention, and treatment of various common disease problems are discussed. This course presents a sound preventative approach to animal health and husbandry as it relates to body health, form and function.

Lecture hours: 48
Lab/Clinic hours: 32

Prerequisite(s): AGS113 Survey of the Animal Industry

Course Fee:

AGS225 Swine Science — 3 credits
This course provides an understanding of the principles involved with comprehensive swine management; selection to marketing. Emphasis will be placed on business aspects, production systems, facilities, health, record systems, and analysis. Field trips and guest speakers will be included. Hands-on training will be included through the swine-teaching herd.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:
Prior to Fall 2006 the course number was AS221U

AGS226 Beef Cattle Science — 3 credits
This course prepares students to integrate production principles. Management principles involved with comprehensive beef cattle production will be emphasized. Topics include an overview of the industry, budgeting, record analysis, principles of bull management, cow and heifer management practices, preconditioning programs, feedlot management, and marketing. Students learn through hands-on experience working with the school teaching herd, field trips, and guest speakers.

Lecture hours: 32
Lab/Clinic hours: 32
**AGS229 Sheep Science — 3 credits**
This course prepares the student to integrate production principles. Economic management is stressed as it relates to the profitable sheep enterprise. Topics include budgeting, record analysis, lamb feeding, handling, wool, and marketing. Students receive hands-on experience working with the school flock during lambing and they have the opportunity to participate in scheduled field trips.

Lecture hours: 32  
Lab/Clinic hours: 32

**Prerequisite(s):** AGS113 Survey of the Animal Industry

**Course Fee:**

Prior to Fall 2006 the course number was AS222U

**AGS272 Foods of Animal Origin — 5 credits**
This course is an introduction to contemporary practices and decisions necessary when managing beef, dairy, poultry, sheep, and swine through the stages of their production cycles.

Lecture hours: 64  
Lab/Clinic hours: 32

**Prerequisite(s):** AGS113 Survey of the Animal Industry

**Course Fee:**

Prior to Fall 2006 the course number was AS203T

**AGS275 Food Safety and Analysis — 3 credits**
An introduction to food quality control/assurance and establishment of decision-making processes, looking at potential hazards in the food system along with ways to ensure safety of products. The 3 modules of this course will be 1) Food hazards 2) HACCP (Hazard Analysis Critical Control Points) and 3) Analysis for potential contamination.

Lecture hours: 32  
Lab/Clinic hours: 32

**Course Fee:** $25.00

**AGS305 Livestock Evaluation — 3 credits**
This course develops the student's potential in livestock selection with emphasis placed on the evaluation of breeding animals as well as market animals. The course emphasizes the visual appraisal and the carcass evaluation of beef, swine, and sheep. Production records and grading and wholesale and retail cuts will be studied.

Lecture hours: 32  
Lab/Clinic hours: 32

**Course Fee:**

Prior to Fall 2006 the course number was AS124T

**AGS319 Animal Nutrition — 3 credits**
This course introduces students to the underlying principles of livestock nutrition through discussion of nutrition information, digestive systems, feedstuffs, and ration balancing. Nutritional principles, digestive systems, composition and nutritional characteristics of common feedstuffs, ration formulation and recommended feeding programs of farm animals, including beef and dairy cattle, horses, poultry, sheep and swine will be emphasized.
Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was AS202T

**AGS924 Honors Project — 1 credits**
This course involves in-depth independent research on an approved topic under supervision of a faculty member. Upon project's completion, results will be shared with community of peers and faculty. May be taken for up to 3 credits.

Lecture hours: 16
Lab/Clinic hours:

Course Fee:

**AGT220 AG Research — 3 credits**
This course will provide students with the knowledge and experience to evaluate research data. Statistical methods, research design, research reliability, and sources of information will be covered. Students will evaluate research data found in ads and journals and develop their own independent research study.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was AF220U

**AGT700 Special Topics: Agriculture Education — 1 credits**
This course is designed for secondary agriculture education professionals to develop and enhance knowledge and skills in specific emerging practices, issues, and technical content areas in the broad industry of agriculture.

Lecture hours: 16
Lab/Clinic hours:

Other Requirements: Student must be a Secondary Agriculture Educator

Course Fee:

Prior to Fall 2006 the course number was AG140U

**AGT805 Employment Experience — 5 credits**
This course provides students with opportunities to gain on-the-job experience in the agriculture industry. Students will gain an understanding of qualities and skills needed for success in the agricultural field. Coordination and guidance will be provided by department instructors.

Lecture hours: 0
Lab/Clinic hours:
Co-op Hours: 320

Course Fee:

Prior to Fall 2006 the course number was AG138T

**AGT928 Independent Study — 1 credits**
Students can earn one to five credits for this Independent Study course.

Lecture hours: 0
Lab/Clinic hours:
Course Fee:

**AGV101 Veterinary Assisting — 3 credits**
This is a Capstone course that will provide students the necessary skills and competencies that are needed to successfully perform the duties of a veterinary assistant. An example of topics covered will include; basic laboratory procedures, animal positioning, and surgical assistance. Staff and animal safety will also be covered.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was AS125U

**AGV121 Veterinary Medical Terminology — 2 credits**
This class focuses on reading and interpreting medical charts and records and conversing with veterinary professionals. It is designed for students to develop a working understanding of the language of veterinary medicine.

Lecture hours: 32
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was AS105U

**AGV123 Companion Animal — 3 credits**
This course provides an understanding of the basic principles of Anatomy and Physiology and Health of companion animals. Additionally the course will offer insight into social behavior and relationships. Also included will be training, housebreaking and obedience.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was AS205T

**AGV140 Veterinary Pharmacology — 3 credits**
This class introduces the student to small animal pharmaceuticals. Learning is centered on the use, dosage, administration, handling, and storage of commonly used drugs used in small and large animal veterinary practices.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): AGS218 Domestic Animal Physiology

Course Fee:

Prior to Fall 2006 the course number was AS135U

**AGV154 Veterinary Reception and Administration Skills — 4 credits**
This class introduces the student to means necessary to establish a working relationship with clients in the veterinary field. Familiarizes students with software used in veterinary practice.

Lecture hours: 64
Lab/Clinic hours:

Course Fee: $48.00
Prior to Fall 2006 the course number was AS115U

**ANT105 Cultural Anthropology — 3 credits**
This course introduces the student to a comparative study of societies around the world. In this course cultural similarities and differences are explored to illustrate how human beings construct and conduct their existence. It emphasizes the origin and maintenance of the human species by studying its evolution, cultural development, ecology, kinship, organizations, and symbolic expressions.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was SS110T

**ARC112 Architectural Drafting I — 3 credits**
This course introduces the student to the drafting environment and includes basic knowledge and fundamental skills of manual drafting. Special emphasis is placed on reproducible line quality, lettering, geometric constructions, and layout techniques.

Lecture hours: 16
Lab/Clinic hours: 64

Course Fee: $27.00

Prior to Fall 2006 the course number was CT102U

**ARC122 Architectural Drafting II — 3 credits**
In this course students develop drafting skills related to residential and light commercial architecture. Working drawings for a house will be produced from preliminary drawings including a foundation plan, floor plan, exterior elevations, and building and wall sections.

Lecture hours: 16
Lab/Clinic hours: 64

Prerequisite(s): DRF113 Fundamentals of Technical Drafting and ARC174 Construction Drawings

Course Fee: $143.00

Prior to Fall 2006 the course number was CT137U

**ARC175 Building Systems — 3 credits**
This course is a study of basic construction materials and methods used in residential and light commercial projects. Students will examine building systems by studying the structural, exterior finishing, and interior finishing systems.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): ARC174 Construction Drawings and DRF113 Fundamentals of Technical Drafting

Course Fee:

Prior to Fall 2006 the course number was CT133U

**ARC176 Construction Scheduling — 3 credits**
This course introduces the student to procedures for managing and scheduling materials and labor equipment for a construction project. The students will examine and develop several of the methods used in organizing, tracking, and illustrating a schedule for a construction project. Critical Path Method (CPM) scheduling will be the major focus of this course.
Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): ARC174 Construction Drawings

Course Fee:

Prior to Fall 2006 the course number was CT138U

**ARC177 Load Calculations — 3 credits**
Students study wood, steel, and concrete structural members as building materials and then size them to meet specific building requirements by using mathematic calculations and Load Tables.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): ARC174 Construction Drawings and ARC175 Building Systems

Course Fee:

Prior to Fall 2006 the course number was CT203U

**ARC178 Building Codes and Construction Documents — 2 credits**
Students study the development, adoption and, enforcement of building codes. The effect of codes on building materials and methods is also examined. Students investigate the function and employment of common construction documents used in bidding and the administration of building activities.

Lecture hours: 32
Lab/Clinic hours:

Prerequisite(s): ARC174 Construction Drawings and ARC175 Building Systems

Course Fee:

Prior to Fall 2006 the course number was CT205U

**ARC252 AEC CAD I — 3 credits**
This course introduces the student to Architectural, Engineering, and Construction (AEC) CAD technique for the production of working drawings for a commercial project. Using an AEC CAD program, students will produce drawings for a structural concrete building from preliminary sketches. These drawings include a foundation plan, floor plan, exterior elevations, and details.

Lecture hours: 16
Lab/Clinic hours: 64

Course Fee: $40.00

Prior to Fall 2006 the course number was CT207U

**ARC262 AEC CAD II — 3 credits**
The student will continue the development of AEC CAD skills for the production detailed commercial project. In this course the students will be utilizing AEC CAD skills for producing the drawings for the Design Projects course.

Lecture hours: 16
Lab/Clinic hours: 64

Prerequisite(s): ARC252 AEC CAD I

Course Fee: $60.00

Prior to Fall 2006 the course number was CT235U
ARC266 Mechanical Systems — 2 credits
Students explore the requirements for plumbing, electrical, heating, cooling, fire safety, lighting, and communications systems in a modern building. Using samples of local codes, the students will correctly size some systems and study working drawings of each of the systems.

Lecture hours: 32
Lab/Clinic hours: 

Prerequisite(s): DRF113 Fundamentals of Technical Drafting

Course Fee:

Prior to Fall 2006 the course number was CT201U

ARC272 AEC Design Projects — 3 credits
This is a cap-stone course that requires completion of a comprehensive and culminating project. The project demonstrates integration of previous course work into a project including the development of a team and project administration, building design activities, and supervisory components.

Lecture hours: 16
Lab/Clinic hours: 64

Prerequisite(s): ARC252 AEC CAD I, ARC177 Load Calculations, ARC178 Building Codes and Construction Documents, ARC266 Mechanical Systems

Course Fee:

Prior to Fall 2006 the course number was CT233U

ART101 Art Appreciation — 3 credits
This course is an examination of the value, esthetic pleasures, structure, function, and history of art. The course explores sculpture, painting, film, drawing, printmaking, photography, ceramics, and architecture. Field trips to galleries allow students the opportunity to personally experience significant visual art.

Lecture hours: 48
Lab/Clinic hours: 

Course Fee:

Prior to Fall 2006 the course number was FA101T

ART106 Art Appreciation-Studio — 3 credits
This course is an investigation of art through active studio involvement with art mediums, materials, and techniques. Hands-on participation combined with fundamental study of historic content provide an opportunity for critical analysis and understanding of various visual art forms.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

ART120 2-D Design — 3 credits
This course introduces students to the principles of design on the two-dimensional plane. Students are instructed in conceptual thinking, content and art practices, and exposed to design, color theory, and organizational principals. An introduction to materials and practice through the disciplines of drawing, painting, printmaking, and collage are part of the conceptualization process offered in this curriculum.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:
ART123 3-D Design — 3 credits
This course introduces students to the principles of design on the three-dimensional plane. Students are instructed in conceptual thinking, content and art practices, and exposed to the elements of art/design and organizational principles through the utilization of space. An introduction to materials and practice through the disciplines of drawing, designing and drafting are part of the conceptualization process offered in this curriculum. Projects will revolve around paper and card construction, modeling clay, iron wire, and found objects.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was FA116T

ART133 Drawing — 3 credits
This course is an introduction to basic drawing. Working with still life props: line, form, values, perspective, and composition will be explored using various wet and dry mediums. Concentration will be on accurate visual drawing.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was FA205T

ART134 Drawing II — 3 credits
This course concentrates on intermediate drawing problems: Gesture, contour, proportions, mapping techniques, and values are studied through the use of props and clothed models. Creative interpretation with various media and approaches are stressed.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was FA210T

ART143 Painting — 3 credits
This course is an introduction to painting in a variety of media. Color theory, design theory, and media area applied to exercises, studies, and finished paintings. Concentration is on developing skills in handling materials and personal expression through painting.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was FA100T

ART144 Painting II — 3 credits
This course is an advanced painting course using a variety of media with greater emphasis on self-direction. Concentration is on developing advanced skills in handling materials leading to greater abilities and personal expression through painting.

Lecture hours: 32
Lab/Clinic hours: 32
ART143 Painting or equivalent or permission of the instructor

Course Fee:

Prior to Fall 2006 the course number was FA102T

**ART173 Ceramics — 3 credits**
A hands-on intensive introduction to clay and glaze materials integrated with a fresh approach to building interesting forms effectively.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was FA102T

**ART184 Photography — 3 credits**
This course is an introduction to the basics of photography. The course covers the basic equipment and skills needed to make effective photographic images. Content includes: camera types, lenses, exposure control, films, and other subject areas related to the photographic field.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was FA112T

**ART203 Art History I — 3 credits**
This course is an introduction to the history of visual art and artists; prehistory through Gothic. All forms of media: painting, sculpture, drawing, architecture, ceramics, metal work, glass, and others are considered in the context of time, society, and the human impulse to create.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was FA105T

**ART204 Art History II — 3 credits**
This course is an introduction to the history of visual art and artists; Renaissance to the present. All forms of media: painting, sculpture, drawing, architecture, ceramics, metal work, glass, photography, film, and others are considered in the context of time, society, and the human impulse to create.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was FA106T

**ART924 Honors Project — 1 credits**
This course involves in-depth independent research on an approved topic under supervision of a faculty member. Upon project's completion, results will be shared with community of peers and faculty. May be taken for up to 3 credits.

Lecture hours: 16
Lab/Clinic hours:

Course Fee:

**ART928 Independent Study — 1 credits**
Students can earn one to five credits for this Independent Study course.

Lecture hours: 0
Lab/Clinic hours:

Course Fee:

**ATR145 Applied Industrial Robotics — 2 credits**
This course will introduce the study of industrial robots. This hands-on course will equip students with the skills for the installation, programming, and troubleshooting of industrial robots.

Lecture hours: 16
Lab/Clinic hours: 32

Course Fee:

**AUT106 Introduction to Automotive Technology — 2 credits**
This introductory course provides an introduction to the many facets of the automotive industry to include: careers in the automotive industry, environmental concerns affecting the automotive industry, basic automotive hand tools, specialty tools, precision measuring tools, power tools and shop equipment, using service and shop manuals, and shop safety.

Lecture hours: 16
Lab/Clinic hours: 32

Course Fee:

**AUT107 Introduction to Automotive Technology — 6 credits**
This course includes automotive electrical theory, electrical components, component operation, testing and repair procedures. Electronic theory, electronic components and operation are included. Use of technical manuals and test equipment is emphasized. Environmental concerns and shop operations are addressed.

Lecture hours: 80
Lab/Clinic hours: 48

Course Fee:

Prior to Fall 2006 the course number was AT103U

**AUT109 Introduction to Automotive Technology II — 2 credits**
This course includes the use of hand and power tools, the understanding of electronic repair information and the importance of preventative maintenance.

Lecture hours: 16
Lab/Clinic hours: 32

Course Fee:

**AUT164 Automotive Engine Repair — 4 credits**
Basic theory of two-cycle and four-cycle gasoline engines and their application will be introduced. Disassembly, inspection and reassembly of an engine will be experienced as well as cooling, lubrication, induction, exhaust, compression and valve systems discussed. Students will develop competencies in precision measuring and services procedures.

Lecture hours: 32
Lab/Clinic hours: 64

Course Fee:

**AUT165 Automotive Engine Repair — 5 credits**
This course covers multi-cylinder gasoline internal combustion engines.
Lecture hours: 64
Lab/Clinic hours: 48
Course Fee: $65.00

Prior to Fall 2006 the course number was AT107U

**AUT204 Automotive Automatic Transmissions and Transaxles — 4 credits**
This course covers the advanced study of automatic transmission theory and service. The student will review basic automatic transmission theory. The student will study diagnosis, disassembly, inspection, and assembly of different types of automatic transmissions and trans-axles.

Lecture hours: 32
Lab/Clinic hours: 64

Course Fee:

Prior to Fall 2006 the course number was AT204U

**AUT205 Automotive Automatic Transmissions/Transaxles — 5 credits**
This course is the study of components and operation of automatic transmissions/transaxles. Emphasis is placed on construction of transmission components, hydraulic controls, diagnostic techniques, and servicing.

Lecture hours: 64
Lab/Clinic hours: 48

Course Fee:

Prior to Fall 2006 the course number was AT231U

**AUT305 Automotive Manual Drive Train and Axles — 5 credits**
A comprehensive study of the drive train components and their relationship to the application of power to the drive wheels of vehicles.

Lecture hours: 64
Lab/Clinic hours: 48

Course Fee:

Prior to Fall 2006 the course number was AT240U

**AUT307 Automotive Manual Transmissions/Transaxles — 4 credits**
A comprehensive study of the manual transmissions/transaxle components and their relationship to the application of power to the drive wheels of vehicles.

Lecture hours: 32
Lab/Clinic hours: 64

Course Fee:

**AUT315 Automotive Differentials and 4-Wheel Drive — 4 credits**
A comprehensive study of Differentials and Transfer Cases and their relationship to the application of power to the drive wheels of vehicles.

Lecture hours: 32
Lab/Clinic hours: 64

Course Fee:

**AUT404 Automotive Suspension and Steering — 4 credits**
Steering and suspension system operation and service procedures are covered. Emphasis is on diagnosis and repair procedures

Lecture hours: 32
Lab/Clinic hours: 64

Course Fee:

**AUT405 Automotive Suspension and Steering — 5 credits**
Steering and suspension system operation and service procedures are covered. Emphasis is on diagnosis and repair procedures.

Lecture hours: 64
Lab/Clinic hours: 48

Course Fee:

Prior to Fall 2006 the course number was AT131U

**AUT504 Automotive Brake Systems — 4 credits**
Instruction in the theory and operating principles of drum, disc, hydraulic, and anti-lock brake systems. Laboratory procedures for inspecting, testing, diagnosing, repairing, and/or replacing conventional, power brake system components.

Lecture hours: 32
Lab/Clinic hours: 64

Course Fee:

Prior to Fall 2006 the course number was AT141U

**AUT505 Automotive Brake Systems — 5 credits**
Brake systems operation and service procedures are covered. Emphasis is on diagnosis and repair procedures.

Lecture hours: 64
Lab/Clinic hours: 48

Course Fee:

**AUT537 Automotive Advanced Brake Systems — 4 credits**
This course explains anti-lock brake systems. It also covers the diagnosis and repair of this system, as well as traction and stability control.

Lecture hours: 32
Lab/Clinic hours: 64

Prerequisite(s): A minimum grade of D- in AUT504 Automotive Brake Systems.

Course Fee:

**AUT610 Automotive Electrical I — 4 credits**
This introductory course covers basic electronic theory and utilization of electrical measuring instruments. Emphasis will be placed on the application of Ohm's Law and the proper utilization of electronic test equipment including practice with equipment and circuits.

Lecture hours: 32
Lab/Clinic hours: 64

Course Fee:

**AUT631 Automotive Electronics — 4 credits**
This course includes the theory of automotive electronics, communication of automotive electronics and repair of electronic systems.

Lecture hours: 32
Lab/Clinic hours: 64

Prerequisite(s): A minimum grade of D- in AUT610 Automotive Electrical I and AUT643 Automotive Starting, Charging, and Electrical.

Course Fee:

**AUT634 Automotive Electronics I — 3 credits**
This course presents concepts of electricity and electronics. Circuits, components, devices, and applications are explored.

Lecture hours: 32
Lab/Clinic hours: 48

Course Fee:

Prior to Fall 2006 the course number was AT203U

**AUT635 Automotive Electronics II — 3 credits**
Students continue in the study of electronics theory, construction, and application to automotive systems.

Lecture hours: 32
Lab/Clinic hours: 48

Course Fee:

Prior to Fall 2006 the course number was AT205U

**AUT643 Automotive Starting, Charging, and Electrical — 4 credits**
This course includes automotive electrical theory, electrical components, component operation, testing and repair procedures for automotive charging, starting and electrical systems.

Lecture hours: 32
Lab/Clinic hours: 64

Prerequisite(s): A minimum grade of D- in AUT610 Automotive Electrical I.

Course Fee:

**AUT645 Automotive Charging, Starting, and Electrical Systems — 5 credits**
This course includes automotive electrical theory, electrical components, component operation, testing and repair procedures for automotive charging, starting, and electrical systems.

Lecture hours: 64
Lab/Clinic hours: 48

Prerequisite(s): AUT107 Introduction to Automotive Technology

Course Fee:

Prior to Fall 2006 the course number was AT105U

**AUT704 Automotive Heating and Air Conditioning — 4 credits**
This course will provide instruction in the theory of operation of auto air conditioning and heating systems. Students will learn how to diagnose and service auto air conditioning systems and heating systems.

Lecture hours: 32
Lab/Clinic hours: 64

Course Fee:

**AUT705 Automotive Heating and Air Conditioning — 5 credits**
This course studies heating, air conditioning, and electrical accessory systems. Diagnosis and repair of heating, air conditioning, and electrical/electronic systems are emphasized.

Lecture hours: 64
Lab/Clinic hours: 48

Course Fee:

Prior to Fall 2006 the course number was AT233U

**AUT827 Automotive Ignition Systems — 4 credits**
Operation, diagnosis, and repair procedures used to service the modern automotive ignition system.

Lecture hours: 32
Lab/Clinic hours: 64

Prerequisite(s): A minimum grade of D- in AUT842 Automotive Computerized Engine Controls.

Course Fee:

**AUT834 Automotive Fuel Systems — 4 credits**
This course will provide the instruction to introduce the student to basic fuel system principles. Students will study theory and will gain hands-on experience by cleaning, repairing, and adjusting automotive fuel systems.

Lecture hours: 32
Lab/Clinic hours: 64

Course Fee:

**AUT842 Automotive Computerized Engine Controls — 4 credits**
This course builds upon the knowledge and skills learned in previous automotive courses to prepare the student to service On-Board Diagnosis 2 computer-controlled vehicles. The theory and operating principles of automotive computers, sensors and control devices will be emphasized. Lab instruction on late model cars will be included.

Lecture hours: 32
Lab/Clinic hours: 64

Course Fee:

**AUT850 Automotive Engine Drivability Diagnosis — 6 credits**
This course covers multi-cylinder gasoline internal combustion engines. Areas of study include ignition and fuel systems operation.

Lecture hours: 80
Lab/Clinic hours: 48

Course Fee:

Prior to Fall 2006 the course number was AT143U

**AUT857 Advanced Automotive Engine Drivability Diagnosis — 6 credits**
This course covers diagnosis, repair, and adjustment of electronic engine controls, including ignition, emission, and fuel systems. Emphasis is on diagnostic equipment usage.

Lecture hours: 80
Lab/Clinic hours: 48

Prerequisite(s): AUT107 Introduction to Automotive Technology, AUT850 Automotive Engine Drivability Diagnosis
Prior to Fall 2006 the course number was AT235U

**AUT886 Comprehensive Application — 4 credits**
Students are presented with diagnostic problems and repair projects. Competencies attained in prior classes are emphasized.

Lecture hours: 32  
Lab/Clinic hours: 64

Prerequisite(s): A minimum grade of D- in AUT106 Introduction to Automotive Technology, AUT109 Introduction to Automotive Technology II, AUT164 Automotive Engine Repair, AUT610 Automotive Electrical I, AUT504 Automotive Brake Systems, AUT643 Automotive Starting, Charging, and Electrical, and AUT307 Automotive Manual Transmissions/Transaxles.

Prior to Fall 2006 the course number was AT201U

**BCA132 Electronic Communications — 3 credits**
An introductory course in electronic communications designed to provide the students with a basic understanding of electronic mail, presentation software, and desktop publishing software. Students will be given hands-on experience with the software.

Lecture hours: 48  
Lab/Clinic hours:

Prerequisite(s): CSC110 Introduction to Computers or ADM105 Introduction to Keyboarding and BCA134 Word Processing

Prior to Fall 2006 the course number was BS143U

**BCA134 Word Processing — 3 credits**
This course will provide word processing concepts, terminology, and experience producing entry-level and advanced documents found in typical business offices. The major focus of the course is on mastery of word processing functions and concepts.

Lecture hours: 48  
Lab/Clinic hours:

Co-requisite(s): ADM105 Introduction to Keyboarding
BCA183 Basic Web Design Software — 2 credits
This course will show students how to use a web authoring software to enhance and manage professional quality web sites. Students will create a web site containing multimedia elements, publish it, and maintain it.

Lecture hours: 16
Lab/Clinic hours: 32
Prerequisite(s): WDV102 Intro to Web Development
Course Fee:

BCA191 Computer Applications — 2 credits
This course presents the application of the personal computer as a productivity tool. Basic functions of computer hardware and software and their interaction are introduced. Various components of a computer system are included with hands-on emphasis of the manipulation of word processing, spreadsheet, and database software.

Lecture hours: 16
Lab/Clinic hours: 32
Course Fee:

Prior to Fall 2006 the course number was CL103U

BCA201 Introduction to Information Systems — 3 credits
The purpose of this course is to provide the student with a firm understanding of management information systems. Included are an introduction to hardware and data communication technology, software and data management and business applications of the technology. The course will present the basics of information system design and management, and provide opportunities to experience working with an electronic spreadsheet, database management system, and programming using HTML.

Lecture hours: 48
Lab/Clinic hours:
Other Requirements: Basic computer, software, and keyboarding skills are required.

Course Fee:

Prior to Fall 2006 the course number was MG112T

BCA205 Database/Spreadsheets — 3 credits
This course emphasizes file management and learning to generate and format spreadsheets and databases. File management tasks include managing folders and moving, copying, and deleting files. Spreadsheet tasks include making entries, correcting entries, entering formulas, and creating charts. Database tasks include designing and creating tables, generating queries, creating forms and reports, and database maintenance. Basic computer literacy is expected of students enrolling in this course.

Lecture hours: 48
Lab/Clinic hours:
Prerequisite(s): Appropriate math placement score;
A minimum grade of 'C' in RDG039 College Preparatory Reading II or appropriate compass score
Co-requisite(s): Ability to type 15 net words per minute on a five-minute timing. Test will be given on the first day of class.

Course Fee:

Prior to Fall 2006 the course number was BS106U

BCA213 Intermediate Computer Business Applications — 3 credits
This course covers advanced computer applications including word processing, spreadsheet, database, and presentation software. Topics include using mail merge, desktop publishing, using database functions in a spreadsheet, templates, creating customized reports and forms in database, advanced features of presentation software, importing and exporting data.

Lecture hours: 48

Lab/Clinic hours:

Prerequisite(s): BCA205 Database/Spreadsheets and BCA134 Word Processing

Course Fee:

Prior to Fall 2006 the course number was BS200U

**BCA232 Multimedia for Web Design — 3 credits**

This course is designed to show students the tools and methods for using multimedia objects in web development. Media types discussed will include streaming video and audio, animation, inline media, and online chat. Students will create a website that incorporates multimedia elements.

Lecture hours: 32

Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was IF233U

**BCA924 Honors Project — 1 credits**

This course involves in-depth independent research on an approved topic under supervision of a faculty member. Upon project's completion, results will be shared with community of peers and faculty. May be taken for up to 3 credits.

Lecture hours: 16

Lab/Clinic hours:

Course Fee:

**BIO042 Preparatory Science for Health Careers — 3 credits**

This course provides a focused examination of study skills/strategies and a foundation in biology to help students be more successful in health career classes. Students will be introduced to and given the opportunity to practice a variety of skills for academic success. Students will be introduced to major topics relating to health science curriculum: basic math, terminology, chemistry, and cell biology. Selected topics from the body systems will also be introduced.

Lecture hours: 48

Lab/Clinic hours:

Prerequisite(s): A minimum grade of C in MAT052 Pre-Algebra and RDG039 College Preparatory Reading II.

Course Fee:

**BIO105 Introductory Biology — 4 credits**

This course provides an introduction to living organisms, their diversity, structure and function, and how they maintain themselves both during their life cycle and as a species. It is designed to highlight concepts of the biological sciences for the non-biology major and satisfies the requirement for a life science course for the Associate in Arts or Science degrees. There are three hours of lecture and two hours of laboratory each week.

Lecture hours: 48

Lab/Clinic hours: 32

Course Fee:
**BIO112 General Biology I — 4 credits**

This lecture and laboratory course is the first of a two semester sequence designed for students with a specific interest in majoring in the biological sciences or a desire for a more comprehensive undergraduate course in the discipline. The course integrates the basic principles of general biology and focuses on their interrelationships. The major themes addressed include levels of organization, cell structure and metabolism, the genetic basis of life, evolution, diversity, and ecological relationships. Laboratory exercises are coordinated with lecture topics to enhance the student's understanding of these topics.

Lecture hours: 48  
Lab/Clinic hours: 32

Course Fee:

**BIO113 General Biology II — 4 credits**

This lecture and laboratory course is part of a two semester sequence designed for students with a specific interest in majoring in the biological sciences or a desire for a more comprehensive undergraduate course in the discipline. The major focus of this course is on the diversity of life forms, including microbes, protists, the fungi, plants, and animals. The course will include the study of their structure and function, evolutionary patterns, ecological relationships and, behavior. Laboratory exercises are coordinated with lecture topics to enhance the student's understanding of the lecture concepts.

Lecture hours: 48  
Lab/Clinic hours: 32

Course Fee:

**BIO150 Fundamentals of Nutrition — 2 credits**

Fundamentals of Nutrition will introduce students to food/nutrients essential for good health. Emphasis will be placed on selection and use of food for health and satisfaction of the individual family.

Lecture hours: 32  
Lab/Clinic hours:

Course Fee:

**BIO151 Nutrition — 3 credits**

This course will introduce students to the science of nutrition. The course will examine individual nutrients; their structure and function in the human body; nutrient composition of food; and selection of food to meet nutrient needs, maintain health, and satisfaction. Students will understand and apply present day knowledge of nutrition to dietary patterns and needs of selected individuals and groups. The course is an advanced beginning course in human nutrition designed for students with a science background.

Lecture hours: 48  
Lab/Clinic hours:

Course Fee:

**BIO154 Human Biology — 3 credits**

This course explores human structure and function and the relationship of humans to other living organisms. The course examines the application of basic biological principles to practical human concerns. The course is
a one-semester biology course intended for students who do not wish to major in the biological or health sciences.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was BI113T

**BIO159 Fundamentals of Anatomy and Physiology — 3 credits**
This course provides a basic overview of the anatomy and physiology of the human body. It is designed to provide practical nursing and other health science students with an understanding of normal body structure and function as a basis for the study of variations from normal health.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): BIO041 Pre-Technical Biology

Course Fee:

Prior to Fall 2006 the course number was BI105U

**BIO160 Basic Anatomy and Physiology Lab — 1 credits**
This course provides the student with information in basic first aid, taking and recording of vital signs, and CPR. This course is required for students in the Dental Assisting Program.

Lecture hours: 32
Lab/Clinic hours:

Prerequisite(s): BIO158 Basic Anatomy and Physiology

Course Fee:

Prior to Fall 2006 the course number was BI121U

**BIO163 Essentials of Anatomy and Physiology — 4 credits**
This course is an introduction to the principles of human anatomy and physiology beginning with the cellular/biochemical level of organization and progressing through a comprehensive study of organ systems emphasizing homeostasis. This is a one-term transfer level class designed for students entering allied health fields or biological sciences. To be applicable to any health career program, successful completion with a grade of "C" or better is required. Each student must enroll for one laboratory section.

Lecture hours: 48
Lab/Clinic hours: 32

Course Fee: $50.00

Prior to Fall 2006 the course number was BI103T

**BIO168 Human Anatomy and Physiology I with Lab — 4 credits**
The first of a two-semester sequence especially designed for students pursuing careers in allied health fields as well as any student desiring an in-depth undergraduate transfer course. The course focuses on the interdependent relationships between the structure and functions of body systems and the ways these parts interact (homeostasis) to insure the survival of the organism. Major topics addressed include levels of organization, the chemistry of life, support/movement, integration/control, and coordination. Coordinated laboratory exercises focus on anatomical knowledge and physiological functions.

Lecture hours: 48
Lab/Clinic hours: 32
Prerequisite(s): BIO168 Human Anatomy and Physiology I w/lab and BIO173 Human Anatomy and Physiology II w/lab with a grade of C or better

Course Fee:

Prior to Fall 2006 the course number was BI104T

**BIO173 Human Anatomy and Physiology II with Lab — 4 credits**
The second of a two-semester sequence designed for students pursuing careers in allied health fields or wishing an in-depth undergraduate transfer course in the biological sciences. The course focuses on interdependent relationships between the structures and functions of body systems and the way these parts interact (homeostasis) to insure survival of the organism. Major topics addressed include systems associated with circulation, maintenance, elimination, and continuity. Coordinated laboratory exercises focus on anatomical knowledge and physiological functions.

Lecture hours: 48
Lab/Clinic hours: 32

Prerequisite(s): BIO168 Human Anatomy and Physiology I w/lab

Course Fee:

Prior to Fall 2006 the course number was BI105T

**BIO185 Microbiology with lab — 3 credits**
This lecture-laboratory course emphasizes a survey of general topics needed by students entering careers in allied health fields as well as any student desiring a background in microbiology. The course covers aspects of microbial function, nutrition and growth, metabolism, energy procurement, medical genetics, genetic engineering, control using physical and chemical agents, host-parasitic relationships as well as beneficial roles of microorganisms. Coordinated laboratory exercises enhance and support the lecture topics.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was BI106T

**BIO924 Honors Project — 1 credits**
This course involves in-depth independent research on an approved topic under supervision of a faculty member. Upon project's completion, results will be shared with community of peers and faculty. May be taken for up to 3 credits.

Lecture hours: 16
Lab/Clinic hours:

Course Fee:

**BIO928 Independent Study — 1 credits**
This course provides opportunity for a student to focus previous course work and knowledge on a special issue as well as provide for individualized exploration of topics germane to the student's projected objectives within any recognized discipline. Faculty consultation is required prior to registration for this course.

Lecture hours: 0
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was BI181T, BI182T, BI183T

**BUS102 Introduction to Business — 3 credits**
An introductory survey course which provides an overview of the major functions in business with relation to current social, economic, and environmental concerns.

Lecture hours: 48
Lab/Clinic hours: 

Course Fee:

Prior to Fall 2006 the course number was MG101T, MG194T

**BUS180 Business Ethics — 3 credits**
This course is an introduction to ethical decision making in business. There is an examination of individual, organizational, and macro level issues in business ethics. This course does not determine correct ethical action; it is designed to assist the potential businessperson to make more informed ethical decisions on a daily basis. Dilemmas, real life situations, and cases provide an opportunity for you to use concepts in the assignments and to resolve ethical issues. Since there is no universal agreement on the correct ethical business norms critical thinking and informed decision making are emphasized.

Lecture hours: 48
Lab/Clinic hours: 

Course Fee:

Prior to Fall 2006 the course number was MM138T

**BUS183 Business Law — 3 credits**
An introduction to the principles of law as they relate to business. This course includes an overview of our court system, sources of law, ethics and social responsibility, contracts, warranties, real property, landlord and tenant, negotiable instruments, and agency. Emphasis is placed on exploring the law as it affects businesses and individuals.

Lecture hours: 48
Lab/Clinic hours: 

Course Fee:

Prior to Fall 2006 the course number was MG106T

**BUS210 Business Statistics — 3 credits**
Application and interpretation of probability and statistics as they relate to business problems; design of experiment, descriptive statistics, sampling, estimation, correlation, linear regression, hypothesis testing, and analysis of variances.

Lecture hours: 48
Lab/Clinic hours: 

Prerequisite(s): MAT156 Statistics or equivalent or appropriate placement score

Course Fee:

Prior to Fall 2006 the course number was MG105T

**BUS220 Introduction to International Business — 3 credits**
This course focuses on marketing management problems, techniques, and strategies needed within the world marketplace. Understanding a country’s cultural and environmental impact is emphasized. Worldwide consumerism, economic and social development, the spread of multinational corporations, business ethics, cultural diversity, and current economic and marketing issues will be examined.

Lecture hours: 48
Lab/Clinic hours:
Course Fee:

**BUS230 Quantitative Methods for Business Decision Making — 3 credits**

Quantitative and qualitative aspects of problem solving and decision making in business are covered. Topics include structuring and the basics of decision making, classification theory, functional relationships, marginal analysis, resource allocation, and probability.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): MAT156 Statistics

Course Fee:

Prior to Fall 2006 the course number was MG108T

**BUS903 Business Field Experience — 3 credits**

This course provides students with the opportunity to gain practical work experience, while applying skills and techniques learned in their program of study, under the supervision of an employer, manager, or supervisor.

Lecture hours: 0
Lab/Clinic hours:
Co-op Hours: 192

Other Requirements: 2.00 cumulative GPA

Course Fee:

Prior to Fall 2006 the course number was BS204U

**BUS905 Golf Course Internship — 3 credits**

Students will intern at golf courses and country clubs throughout the region and state, focusing on internal and external operations of the course/club.

Lecture hours: 0
Lab/Clinic hours:
Co-op Hours: 192

Prerequisite(s): A minimum grade of C- in MGT222 Golf Club Operations.

Course Fee:

**BUS905 Golf Course Internship — 1 credits**

Students will intern at golf courses and country clubs throughout the region and state, focusing on internal and external operations of the course/club.

Lecture hours: 0
Lab/Clinic hours:
Co-op Hours: 64

Prerequisite(s): A minimum grade of C- in MGT222 Golf Club Operations.

Course Fee:

**CAD105 CAD I — 2 credits**

This course introduces and provides the student an opportunity for hands-on experience in computer-aided drafting (CAD) to prepare two-dimensional drawings. Students focus on the architecture of computer systems, terminology, disk operating systems and procedures, and basic CAD drafting commands.

Lecture hours: 16
Lab/Clinic hours: 32
Prior to Fall 2006 the course number was IT141U

**CAD200 CAD SoftPlan — 3 credits**
The CAD SoftPlan course will introduce students to an object based CAD program and the process involved in generating a complete set of residential working drawings. Emphasis will be placed on setting up a drawing, using file management, organizing architectural information, paying attention to detail, converting sketches to CAD, modifying CAD drawings, and applying problem solving skills.

Lecture hours: 32  
Lab/Clinic hours: 32  
Prerequisite(s): CON102 Introduction to Residential Construction

Course Fee: $50.00

**CET122 Construction Drawings and Contracts — 2 credits**
The course examines typical building and civil construction plans and introduces the methods of bidding and contracting for building projects.

Lecture hours: 16  
Lab/Clinic hours: 32

Course Fee:

**CET133 Construction Methods and Resources — 3 credits**
Methods of and problems related to construction of highways and buildings are covered. Examination is done of the commonly utilized resources - money, materials, equipment, personnel - and their management. Production and handling costs are discussed. Productivity, construction scheduling, and construction safety are also covered briefly.

Lecture hours: 32  
Lab/Clinic hours: 32

Course Fee:

**CET142 PC Concrete, HMA, and Testing — 3 credits**
This course covers types, production, and physical properties of asphalt and portland cements, testing and selection of mineral aggregates and concrete mix designs, laboratory testing procedures of mix evaluation and quality control methods for asphalt and, portland cement concretes.

Lecture hours: 32  
Lab/Clinic hours: 48

Course Fee:

Prior to Fall 2006 the course number was CE131U

**CET160 Surveying — 3 credits**
Surveying includes the use of surveying instruments and note-keeping for level circuits, topographic surveys, traversing, and construction surveys. Computations to determine errors, distances, azimuths, bearings, angles, areas, volumes, and topics in photogrammetry are included.

Lecture hours: 16  
Lab/Clinic hours: 80  
Prerequisite(s): MAT122 College Algebra or MAT744 Technical Math

Course Fee:
Prior to Fall 2006 the course number was CE133U

**CET182 Structural Detailing Using CAD — 2 credits**
This course uses mostly computer-aided drafting (CAD) and computer techniques to prepare drawings for highway structures which include structural steel, reinforced concrete, and structural timber. The course includes the preparation of bar bend details, reinforcing bar lists, and quantity calculations. Topics from the Department of Transportation Specifications are also covered.

Lecture hours: 16
Lab/Clinic hours: 48

Course Fee: $146.00

Prior to Fall 2006 the course number was CE136U

**CET213 Route Surveying/Roadway Design — 3 credits**
Route surveying covers horizontal and vertical curves (circular, parabolic, and spiral), earthwork, and elements of safety and photogrammetric applications. Fieldwork includes surveying for a grading project and drafting the plan and profile, cross-sections, and calculating and balancing earth volumes. Roadway design incorporates the use of a computer-aided roadway design software package and includes topographic mapping, highway design, and plotting project drawings.

Lecture hours: 16
Lab/Clinic hours: 80

Prerequisite(s): CET160 Surveying

Course Fee:

**CET223 Soils, Testing and Foundations — 3 credits**
Students study the origin, structure, identification, and engineering classification of soils, moisture-density relationships, standard laboratory testing procedures, compressive and shearing strength of soil and bearing capacity of soils, and piling.

Lecture hours: 32
Lab/Clinic hours: 48

Prerequisite(s): PHY162 College Physics I and MAT128 Precalculus

Course Fee:

Prior to Fall 2006 the course number was CE204U

**CET233 Fundamentals of GPS and GIS — 3 credits**
This course will introduce fundamental processes of Global Positioning Systems (GPS) including technical aspects of GPS satellites, differential corrections, and hardware. The specific application for mapping and data collection will be discussed and demonstrated. Fundamental processes and applications of Geographic Information Systems (GIS) will also be introduced, including file formats, data base management, spatial analysis, and manipulation of data.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): CET160 Surveying

Course Fee:

**CET253 Fundamentals of Construction Estimating — 3 credits**
Students learn the fundamental principles of construction estimating. The course stresses the organization of the estimate, the procedure of estimating costs in different divisions of the project, and determining the critical
quantities of materials obtained from a set of plans.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

CET256 Land Surveying — 3 credits
This course covers topics of the U.S. Public Land Survey System, Iowa laws regarding surveying and the preparation and recording of plats. Fieldwork is required to collect boundary measurements and field astronomy for a North azimuth. Calculations include astronomical bearings, traverse adjustment, area and partition of land. Computer drafting is used in the preparation of the plat.

Lecture hours: 16
Lab/Clinic hours: 64

Prerequisite(s): CET160 Surveying

Course Fee:

Prior to Fall 2006 the course number was CE236U

CET262 Environmental Technology — 3 credits
Topics covered include hydraulics, hydrology, water quality, water and sewer systems, storm water control, solid and hazardous waste, and air and noise pollution.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): PHY162 College Physics I and MAT122 College Algebra or MAT744 Technical Math

Course Fee:

CET285 Structural Steel/Reinforced Concrete Design — 3 credits
Structural Steel Design covers the design of beams, columns, bolted and welded connections, base and bearing plates, and tension members. Reinforced Concrete Design covers the strength and behavior of reinforced concrete in the design of such structural members as beams, slabs, walls, columns and footings.

Lecture hours: 16
Lab/Clinic hours: 64

Course Fee:

CHM122 Introduction to General Chemistry — 4 credits
An introductory course which assumes a minimal student background in mathematics and chemistry. The course is intended to serve students in allied health programs and any student desiring an application-oriented, less theoretical approach to chemistry. The course introduces students to the practical aspects and basic concepts of chemistry including measurements, dimensional analysis, matter, energy, atoms, elements, the Periodic Chart, nuclear chemistry, chemical bonding, nomenclature, an introduction to organic chemistry, chemical quantities, formulas, gases, chemical calculations, balancing equations, solutions, acids and bases, chemical kinetics, and equilibrium. Coordinated laboratory exercises are intended to emphasize topics covered in the lecture as well as stress basic laboratory techniques.

Lecture hours: 48
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of 'C' in MAT063 Elementary Algebra OR appropriate placement score.

Course Fee:

Prior to Fall 2006 the course number was CH105T
CHM132 Introduction to Organic and Biochemistry — 4 credits
This lecture-laboratory course is intended primarily to serve undergraduate health-related majors such as nursing and dental hygiene as well as the general studies students seeking an integrated background in organic and biological chemistry. Students will study topics applications from a clinical, human, or environmental perspective. Laboratory exercises are coordinated with the lecture topics.

Lecture hours: 48
Lab/Clinic hours: 32

Prerequisite(s): CHM122 Introduction to General Chemistry

Course Fee:

Prior to Fall 2006 the course number was CH107T

CHM165 General Chemistry I — 4 credits
This lecture and laboratory course is the first of a two-semester sequence designed specifically for students majoring in chemistry, physics, biology, or pre-engineering. It is a mathematically rigorous course that assumes the entering student has a strong background in algebra and finite mathematics. Students will learn concepts specific chemical information that will be applied within the context of a variety of chemistry applications. Many of the applications that will be investigated highlight contemporary social and scientific issues. Through participation in course activities, each student should expect to improve her/his knowledge of chemistry and to develop improved qualitative and quantitative problem-solving skills. Hands-on experience with laboratory experiments will allow students to learn proper procedures, to gather meaningful data, and to draw logical and appropriate conclusions based on the laboratory data. Content will include chemical equations, stoichiometry, gases, thermochemistry, equilibrium, electronic structure of atoms, periodic trends, molecular bonding and structure, intermolecular forces, and nuclear chemistry.

Lecture hours: 48
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of 'C' in MAT102 Intermediate Algebra Class in the past 5 years.

Other Requirements: High school Chemistry or consent of instructor

Course Fee:

Prior to Fall 2006 the course number was CH110T

CHM175 General Chemistry II — 4 credits
This lecture and laboratory course is the second of a two semester sequence designed specifically for students majoring in chemistry, physics, biology or pre-engineering. Students will have successfully completed General Chemistry I or it's equivalent. The course focuses on chemical equilibria and their applications, thermodynamics, kinetics, and nuclear chemistry. Specific topics are outlined under the course content. Laboratory exercises are coordinated with lecture topics where possible and are intended to augment and support these topics.

Lecture hours: 48
Lab/Clinic hours: 32

Prerequisite(s): CHM165 General Chemistry I

Course Fee:

Prior to Fall 2006 the course number was CH111T

CHM924 Honors Project — 1 credits
This course involves in-depth independent research on an approved topic under supervision of a faculty member. Upon project's completion, results will be shared with community of peers and faculty. May be taken for up to 3 credits.
CHM928 Independent Study — 1 credits
This course provides opportunity for a student to focus previous course work and knowledge on a special issue as well as provide for individualized exploration of topics germane to the student’s projected objectives within any recognized discipline. Faculty consultation is required prior to registration for this course. Students can earn 1-5 credits.

CIS102 Introduction to Computers — 2 credits
This course introduces the basic use of the personal computer. The course includes a study of DOS (disk operating system), Windows, and word processing.

CIS121 Introduction to Programming Logic — 3 credits
This course will introduce language independent programming logic design techniques. Students will learn techniques such as flow-charting and pseudo-code to build complete programs that can be translated into modern programming languages. Students will learn to use elements of decision making, looping, control breaks, and arrays. Language independent Object Oriented Programming will be introduced along with other advanced topics.

CIS171 Java — 3 credits
This course is designed to give the student the tools and the knowledge to program using the Java language.

CIS175 Java II — 3 credits
This course is a continuation of CIS-171 Java. Additional concepts of object-oriented programming will be applied in a variety of programming exercises.

Prerequisite(s): CIS171 Java
CIS206 Web Scripting — 3 credits
This course is designed to give students experience in creating dynamic web sites. Students will use JavaScript to add interactivity to web site. Students will explore the Document Object Model as well as advanced techniques.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of D in CIS231 PHP Programming and CIS215 Server Side Web Programming.

Course Fee:

Prior to Fall 2006 the course number was IF205U

CIS215 Server Side Web Programming — 3 credits
This course is designed to give the student the tools and the knowledge to program using the web programming language ASP.NET as a server side language. This course goes over the syntax and usage of the language. This course will introduce the basics of web applications.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of D in WDV102 Introduction to Web Development, WDV105 Web Layouts, and CIS121 Introduction to Programming Logic.

Co-requisite(s): A minimum grade of D in MAT110 Math for Liberal Arts.

Course Fee:

CIS217 Data Driven Web Page — 3 credits
This course is designed to give the student the tools and the knowledge to program a web application using PHP and MySQL. This course covers advanced topics such as administration pages for the web site for the management of the web application. This course is a continuation of CIS231 PHP Programming.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of D in CIS215 Server Side Web Programming.

Course Fee:

CIS225 Advanced Server Side Web Programming — 3 credits
This course will build on the skills learned from Server Side Web Programming. This course will work with advanced topics in Active Server Pages. Students will be expected to create entire web sites using information learned in this course. A practical hands-on approach will be utilized.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of D in CIS215 Server Side Web Programming.

Course Fee:

CIS231 PHP Programming — 3 credits
This course is designed to give the student the tools and the knowledge to program using the web programming language PHP as a server side language. This course goes over the syntax and usage of the language. This course will introduce the basics of web applications.

Lecture hours: 32
Lab/Clinic hours: 32
Prerequisite(s): A minimum grade of D in WDV102 Introduction to Web Development, WDV105 Web Layouts, and CIS121 Introduction to Programming Logic.

Co-requisite(s): A minimum grade of D in MAT110 Math for Liberal Arts.

Course Fee:

**CIS234 Web Site Administration — 3 credits**
This course is designed to introduce students to the various platforms that support the servicing websites. Students will install HTTP, FTP, and SMTP servers, configure the services, and tune the servers for performance. Students will also host and maintain several websites on a server.

Lecture hours: 32  
Lab/Clinic hours: 32

Prerequisite(s): WDV102 Intro to Web Development

Course Fee:

**CIS249 Web Languages — 3 credits**
This course is designed to give the student an exploration of other web languages used on the web and learn the basics of those languages.

Lecture hours: 32  
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of D in CIS215 Server Side Web Programming and CIS231 PHP Programming.

Course Fee:

**CIS274 E-Commerce Design — 3 credits**
This course will introduce students to using the Internet as a medium for marketing, sales, and support of a product. Students will learn how to adapt a traditional business model to an electronic model.

Lecture hours: 16  
Lab/Clinic hours: 32

Prerequisite(s): CIS206 Web Scripting

Course Fee:

Prior to Fall 2006 the course number was IF235U

**CIS303 Introduction to Database — 3 credits**
This course will introduce students to data management using databases. Focus will be given to database models, data storage concepts, SQL, and data warehousing.

Lecture hours: 32  
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was IF204U

**CIS355 Database Design and Management — 4 credits**
This course will introduce students to data management using databases. This includes database design, normalization/optimization, relationships, security, and database management systems.

Lecture hours: 48  
Lab/Clinic hours: 32
**CIS750 Project Management — 3 credits**
This course is designed to provide students exposure to project management and its importance to improving success in information technology projects. Topics addressed in the course will include triple constraints of project management, project life cycle, cost estimates, value management and motivation theory, and team building. Tools and techniques important to project management will also be presented, including project selection methods, work breakdowns, network diagrams, critical path analysis, and scheduling. Students will have the opportunity to utilize software to help plan and manage an information technology project.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): A minimum grade of C in NET313 Windows Server and a minimum grade of D in NET213 CISCO Networking.

**CLS130 African Cultures — 3 credits**
This course will explore the development of Sub-Saharan African civilizations from the dawn of humanity to the issues facing the region today. It will look at the indigenous and colonial heritage of the area; examine the political, economic, social, religious, environmental, and gender realities and issues facing the region; and expose students to significant African contributions and trends in prose, poetry, drama, art, music, and dance.

Lecture hours: 48
Lab/Clinic hours:

Prior to Fall 2006 the course number was HM112T

**CLS141 Middle Eastern History and Culture — 3 credits**
This interdisciplinary course will examine the history of civilization in the Middle East with particular emphasis on the period since the birth of Islam. The course will also explore the cross-cultural exchanges that the ancient Middle Eastern and Islamic civilizations have made with other world civilizations. Among other topics this course will explore the foundation and development of Islam and its growth to imperial power; the spread of Islam and its continuing influence in world affairs; and the principle events that have brought about the current political and economic situations in the Middle East.

Lecture hours: 48
Lab/Clinic hours:

Prior to Fall 2006 the course number was HM118T

**CLS150 Latin American History and Culture — 3 credits**
This course will explore the development of Latin American civilization form its ancient origins to the issues facing the region today. The course will look at the indigenous and colonial heritage of the area; examine its shared cultural, literary, economic, social, and political contributions and trends; and look at the history and current issues facing the individual countries or sub-regional groupings.

Lecture hours: 48
Lab/Clinic hours:

Prior to Fall 2006 the course number was HM116T

**CLS160 East Asian Cultures — 3 credits**
This course is an interdisciplinary course that will explore the emergence of East Asian civilization, its development and diversification, and its contacts and exchanges with other world civilizations. Primary emphasis is on China. The course will explore the various historical, cultural, religious, philosophical, economic, political, social, demographic, and geographic factors that make this such a diverse and dynamic civilization and will also draw comparisons between China and neighboring countries.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was HM114T

CLS164 Japanese History and Culture — 3 credits
Japanese History and Culture is an interdisciplinary course that will explore the emergence of Japanese civilization, its development, diversification, and its contacts and exchanges with other world civilizations. The course will explore the various historical, cultural, religious, artistic, philosophical, economic, political, social, cultural, demographic, and geographic factors that make Japan such a diverse and dynamic civilization. Emphasis will be placed upon attempting to understand Japanese culture as being both unique and as intimately related to other cultures.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

CLS172 Russian Civilization — 3 credits
Russia's turbulent past and uncertain present will be discussed in this interdisciplinary course. It will examine the major political, economic, geographic, social, cultural, religious, and other factors that have contributed to the development of Russian civilization. Emphasis will be placed upon understanding Russia as both a unique Eurasian civilization and a part of the global community of nations.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

CLS928 Independent Study — 1 credits
This course provides opportunity for a student to focus previous course work and knowledge on a special issue as well as provide for individualized exploration of topics germane to the student's projected objectives within any recognized discipline. Faculty consultation is required prior to registration for this course. This course can be taken for up to 5 credits.

Lecture hours: 16
Lab/Clinic hours:

Course Fee:

CNS106 Wildlife Ecology — 4 credits
This course examines wildlife ecology. Students will be introduced to wildlife management to apply ecological knowledge in ways to find a balance between the needs of wildlife and the needs of people.

Lecture hours: 48
Lab/Clinic hours: 32

Prerequisite(s): CNS121 Environmental Conservation or equivalent course in ecology.

Course Fee:

Prior to Fall 2006 the course number was NR106U
CNS107 Outdoor Recreation Techniques — 1 credits
This course provides an introduction into basic outdoor recreation techniques commonly utilized by naturalists and conservation professionals to help citizens gain an appreciation of their environment. Recreational techniques will include activities such as canoeing, kayaking, hiking, spelunking, cross-country skiing, and snowshoeing.

Lecture hours: 0
Lab/Clinic hours: 32

Course Fee: $91.00

Prior to Fall 2006 the course number was NR107U

CNS108 Wildlife Identification — 3 credits
This course will provide information to assist in the identification of common wildlife of Iowa. Wildlife will be identified not only by physical characteristics but by many other characteristics. Vertebrates, insects, and macroinvertebrates will be covered. Major groups of vertebrates including mammals, birds, fish, reptiles, and amphibians will be studied.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was NR108U

CNS121 Environmental Conservation — 3 credits
This course enables students to learn about their environment. Students study about natural ecosystems, interactions within ecosystems, ecological principles and their application, the impact our increasing population has on the environment, the importance and components of a sustainable agriculture, and the environmental issues facing today’s world.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was NR121T

CNS134 Wildlife Management — 4 credits
This course will provide a foundation in the dynamics of wildlife conservation and management. This course relates the biological concepts of wildlife populations, habitat management, management goals and applications geared toward various forms of wildlife.

Lecture hours: 48
Lab/Clinic hours: 32

Prerequisite(s): CNS106 Wildlife Ecology

Course Fee:

CNS136 Aquatic Management — 3 credits
This course introduces aquatic conservation and management. Basic background on aquatic environments, the ecology of fish, and the characteristics of humans who utilize aquatic resources or indirectly interact with them through land- and water-use activities will be covered.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:


**CNS138 Woodland Management — 3 credits**
This course will provide an introduction to woodland management from an ecological management perspective. Management of small properties will be emphasized.

Lecture hours: 32  
Lab/Clinic hours: 32

Course Fee:

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**CNS138 Woodland Management — 3 credits**

Prior to Fall 2006 the course number was NR136U

**CNS143 Fire Management — 3 credits**
This course focuses on prescribed burns as a tool in ecosystem management. The use of fire to meet resource management objectives requires definitive and quantified knowledge of physical, biological, and ecological effects of fire on the ecosystem involved. Students will be trained in conducting prescribed burns and will participate as burn crew members.

Lecture hours: 32  
Lab/Clinic hours: 32

Prerequisite(s): CNS121 Environmental Conservation

Course Fee: $88.00

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**CNS201 Conservation Biology — 4 credits**
Conservation Biology has drawn together scientists and environmentalists in basic and applied studies of biodiversity. The student will examine the nature of this emerging field, and will survey basic principles of ecology with emphasis on the ecosystem concept and its central role in conservation management. The student will examine biodiversity in detail, evaluate the threats to biodiversity, and examine the processes of extinction that are leading to a biodiversity crisis. The student will be an active participant in current conservation projects and will conduct studies of the biological diversity of their community.

Lecture hours: 48  
Lab/Clinic hours: 32

Prerequisite(s): CNS121 Environmental Conservation

Course Fee:

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**CNS201 Conservation Biology — 4 credits**

Prior to Fall 2006 the course number was NR201T

**CNS204 Native Vegetation — 3 credits**
This course provides an introduction to botany, landforms of Iowa, and native plant communities. Emphasis will be on the identification of native plants and differentiation from exotic weed species.

Lecture hours: 32  
Lab/Clinic hours: 32

Course Fee:

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**CNS205 Advanced Outdoor Recreation Techniques — 1 credits**
This course provides a wilderness experience to utilize advanced outdoor recreation techniques during an intense time period (over Labor Day weekend or the equivalent). Techniques utilized include hiking, backpacking, canoeing or kayaking, low impact camping, and others. This wilderness encounter is at a remote location such as the Boundary Waters, Isle Royale, etc. The focus of this experience is to gain leadership skills to guide groups of citizens on basic outdoor recreation adventures to increase their appreciation of their
environment such as is done by naturalists and conservation groups by following the 18 points set by the Wilderness Education Association and Leave No Trace Principles.

Lecture hours: 0
Lab/Clinic hours: 32

Prerequisite(s): CNS107 Outdoor Recreation Techniques

Course Fee: $375.00

Prior to Fall 2006 the course number was NR205U

CNS228 Natural Areas Management — 3 credits
This course provides a background in the restoration of native ecosystems. Restoration practices from site analysis, seed and plant selection, and planting techniques; to management by fire, mowing, and weed control are covered. Students will have practical experiences in the reconstruction and management of various ecosystems.

Lecture hours: 16
Lab/Clinic hours: 64

Course Fee: $59.00

Prior to Fall 2006 the course number was NR228U

CNS231 Integrated Roadside Vegetation Management — 2 credits
This course examines integrated roadside vegetation management (IRVM) as a decision-making process for maintaining roadides. IRVM includes the needs of local communities and highway users; the knowledge of plant ecology and natural processes; design, construction, and maintenance considerations, monitoring and evaluation procedures, government statutes and regulations, and technology. It integrates these with cultural, biological, mechanical, and chemical methods to economically manage roadsides for safety, plus environmental and visual quality. It will also provide practical experiences in vegetation management such as planting with a native seed drill and hydoseeder.

Lecture hours: 32
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was NR231U

CNS929 Individual Projects — 1 credits
This course provides in-depth experiences in conservation. Projects are developed in cooperation with and supervised by the instructor dealing with construction, habitat maintenance, wildlife census, habitat mapping, trail development, observation of conservation boards, etc. It includes paper describing the project from start to finish. Hours of credit depend on the scope and depth of the project.

The course can be taken for 1-3 credits and 32-96 lab hours.

Lecture hours: 0
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of C- in CNS121.

Course Fee: $25.00

COM140 Introduction to Mass Media — 3 credits
This course presents elements of the mass communication process with emphasis on the forms, functions, regulations, and social impact of the various media. This course helps students understand how media influence their lives.
COM143 Media Messages: Printed Page — 1 credits
This course focuses on the development of skills needed to access, analyze, evaluate, and produce printed media messages by examining the roles of viewer, producer, text, context, techniques, technologies, and institutions. The combination of COM-143 Media Messages: Printed Page, COM-144 Media Messages: TV and Movies, and COM-147 Media Messages: World Wide Web may equate to a 3 credit media literacy course at other institutions.

Lecture hours: 16
Lab/Clinic hours:

COM144 Media Messages: TV and Movies — 1 credits
This course focuses on the development of skills needed to access, analyze, evaluate, and produce messages from television and film by examining the roles of viewer, producer, text, context, techniques, technologies, and institutions. The combination of COM-143 Media Messages: Printed Page, COM-144 Media Messages: TV and Movies, and COM-147 Media Messages: World Wide Web may equate to a 3 credit media literacy course at other institutions.

Lecture hours: 16
Lab/Clinic hours:

COM147 Media Messages: World Wide Web — 1 credits
This course focuses on the development of skills needed to access, analyze, evaluate, and produce messages accessed through the web by examining the roles of viewer, producer, text, context, techniques, technologies, and institutions. The combination of COM-143 Media Messages: Printed Page, COM-144 Media Messages: TV and Movies, and COM-147 Media Messages: World Wide Web may equate to a 3 credit media literacy course at other institutions.

Lecture hours: 16
Lab/Clinic hours:

COM148 Diversity and the Media — 3 credits
This course presents a historical perspective and a current analysis of various minority groups and how media depict these groups. This course helps students understand why and how stereotypical media portrayals have been produced and how the under-representation of diversified images affects their knowledge, attitudes, and behaviors toward others and contributes to multicultural illiteracy.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:
Prior to Fall 2006 the course number was CM141T

**COM155 Newspaper Production — 3 credits**
This course presents elements of the news reporting process with emphasis on determining newsworthiness, gathering news, writing and editing stories in journalistic style, and observing legal and ethical responsibilities in the print, broadcast, and electronic media. This course helps students explore how journalists determine what the public needs and wants to know.

Lecture hours: 48
Lab/Clinic hours: 

Course Fee:

Prior to Fall 2006 the course number was CM124T

**COM730 Communications — 3 credits**
This course presents elements of oral and written communications with applications to routine correspondence and oral communication situations in the work place. Students will be involved in activities that provide opportunity for the development and improvement of writing skills and oral communication skills.

Lecture hours: 48
Lab/Clinic hours: 

Course Fee:

Prior to Fall 2006 the course number was CM101U

**COM763 Introduction to Professional Writing — 3 credits**
This course provides students with an introduction to professional writing; it overviews the role of writing as an important part of many careers as well as part of an academic discipline. This course explores the issues, theories, resources and career opportunities in professional writing as well as the use of technology to communicate and produce documents.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): ENG105 Composition I

Course Fee:

Prior to Fall 2006 the course number was CM123T

**COM781 Written Communication in the Workplace — 3 credits**
This course focuses on composition and editing of curriculum-specific technical and business-related writing projects. Instruction includes formatting, information gathering, document drafting, editing, and written employment strategies.

Lecture hours: 48
Lab/Clinic hours: 

Course Fee:

Prior to Fall 2006 the course number was CM102U

**COM924 Honors Project — 1 credits**
This course involves in-depth independent research on an approved topic under supervision of a faculty member. Upon project's completion, results will be shared with community of peers and faculty. May be taken for up to 3 credits.

Lecture hours: 16
Lab/Clinic hours:
CON102 Introduction to Residential Construction — 2 credits
Students will be introduced to basic residential construction safety, history, terminology, materials, and basic construction techniques. This course will cover basic information and develop manual skills needed to begin construction of a new home.

Lecture hours: 16
Lab/Clinic hours: 32

CON108 Construction Safety — 1 credits
The Construction Safety course will provide students with the requirements and expectations required to work safely in the numerous occupations of the construction industry. The course will introduce students to the national OSHA safety standards for General Construction and upon their completion of this course will receive the OSHA 10 hour General Construction certification.

Lecture hours: 16
Lab/Clinic hours:

CON109 Construction Safety — 2 credits
This course includes the 30 Hour Construction Outreach Program as outlined by the OSHA Voluntary Outreach Program. Areas of study include General Safety and Health Provisions, Occupational Health and Environmental Controls (HAZCOM), job site safety, training requirements, and an overview of the 1926 Standards (OSHA rules).

Lecture hours: 16
Lab/Clinic hours: 32

Prior to Fall 2006 the course number was CT231U

CON113 Construction Printreading — 2 credits
Students examine and study typical working drawings for use in the construction of residential and light commercial projects. Areas of special attention are specifications, plan views, concrete and structural steel construction drawings and details.

Lecture hours: 32
Lab/Clinic hours:

Prior to Fall 2006 the course number was CT101U

CON121 Carpentry Fundamentals I — 4 credits
The Carpentry Fundamentals Level I course will prepare the diploma level students to take the National Center for Construction Education and Research (NCCER) Level One test. This course will serve as a review and preparation over the Level One Objectives as defined by NCCER.

Lecture hours: 16
Lab/Clinic hours: 96

Prerequisite(s): CON102 Introduction to Residential Construction and CON133 Construction Technology Lab

CON124 Construction Estimating I — 3 credits
Students learn the fundamental principles of construction estimating. The course stresses the organization of the estimate, the procedure of estimating costs in different divisions of the project and determining the critical quantities of materials obtained from a set of plans.

Lecture hours: 32  
Lab/Clinic hours: 32

Prerequisite(s): CON113 Construction Drawings and CON135 Site Planning

Course Fee:

Prior to Fall 2006 the course number was CT132U

CON125 Construction Estimating II — 3 credits
This course presents the skills required to organize and prepare an estimate for a construction project. Students examine the procedure and function of a preliminary estimate, the quantity take-off method, and the summary sheet, all using the CSI format.

Lecture hours: 32  
Lab/Clinic hours: 32

Prerequisite(s): CON124 Construction Estimating I and ARC175 Building Systems

Course Fee:

Prior to Fall 2006 the course number was CT209U

CON129 Concrete Lab — 2 credits
The Concrete Lab course will provide students with hands-on experience in estimating, ordering, forming, working, and finishing concrete.

Lecture hours: 0  
Lab/Clinic hours: 64

Prerequisite(s): CON130 Concrete Theory

Course Fee:

CON130 Concrete Theory — 1 credits
The concrete theory course will provide students with a basic understanding of concrete, and its relationship to residential construction.

Lecture hours: 16  
Lab/Clinic hours: 

Course Fee:

CON131 Site Layout and Blueprint Reading — 1 credits
The Site Layout & Blueprint Reading course will train students to interpret and use site plans and other working drawings. Students will learn how to interpret construction symbols and building specifications. Students will develop site layouts for various projects utilizing lasers, builder’s levels, and transits using site plans and other working drawings.

Lecture hours: 16  
Lab/Clinic hours: 

Course Fee:

CON133 Construction Technology Lab — 4 credits
The Construction Technology Laboratory course offers students the opportunity to further develop their skills with hand and power tool operations, and to devote more time to hands-on construction projects while
improving their skill competencies.

Lecture hours: 0
Lab/Clinic hours: 128

Course Fee:

**CON135 Site Planning — 3 credits**
Students study procedures for developing site plans for a construction project(s). Students will examine aspects of the development of a job site by considering feasibility studies, zoning requirements, site survey and design, and required permits and other pertinent information. The general outline of the Waterloo and Cedar Falls policies will be used as examples.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was CT104U

**CON146 Construction Technology Lab 2 — 3 credits**
The Construction Technology Lab II course will provide students with the opportunity to utilize the knowledge gained in previous construction courses with hands-on applications to construction projects. This course will reinforce construction competencies in applied mathematics, site layout, blue print reading, framing, exterior finishing, interior finishing, sustainable design, and building science.

Lecture hours: 0
Lab/Clinic hours: 96

Prerequisite(s): CON133 Construction Technology Lab
Course Fee: $50.00

**CON201 Framing Techniques and Lab I — 2 credits**
The Framing Techniques and Lab 1 course will introduce students to the methods used to layout wall lines and plates, measure and cut all required parts, and assemble a floor deck, walls, and roof/ceiling framing with an emphasis on air sealing and advanced framing techniques.

Lecture hours: 16
Lab/Clinic hours: 32

Course Fee:

**CON214 Exterior Framing Systems I — 3 credits**
This course will utilize resource efficient advanced framing methods that stress energy efficiency and sustainable design. The "Whole Systems Approach" to residential design and construction will be teamed with Universal Design principles, Optimum Value Engineering techniques, the “Building America” program, and the LEED (Leadership in Energy and Environmental Design) program.

Lecture hours: 16
Lab/Clinic hours: 64

Course Fee:

**CON217 Exterior Finishing — 3 credits**
This course will present the various materials used for residential exterior finishes. Topics will include insulated sheathing, building wraps, drainage planes, shingles, soffits, venting, windows, and exterior doors. Emphasis will be on sustainable construction techniques and building science principles.

Lecture hours: 16
Lab/Clinic hours: 64

Course Fee:

**CON228 Methods of Interior Finishing — 3 credits**
In the Methods of Interior Finishing course, students will discuss the theory and history of the residential interior system. The lab portion of this course will focus on gypsum wallboard installation, taping, finishing, texturing, and painting. The gypsum wallboard work will be followed by the installation of pre-hung door units, casing, base molding, custom trim, closet finishes, hardware, and cabinetry. Universal Design and a focus on indoor air quality will be stressed. Custom interior finish packages may be included.

Lecture hours: 16
Lab/Clinic hours: 64

Course Fee:

**CON266 Construction Safety — 3 credits**
This course includes the 30-Hour Construction Outreach Program as outlined by the OSHA Voluntary Outreach Program. Areas of study include General Safety and Health Provisions, Occupational Health and Environmental Controls (HAZCOM), job site safety, training requirements, and an overview of the 1926 Standards (OSHA rules), with emphasis on developing, implementing and maintaining a comprehensive safety and health program.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

**CON290 Construction Estimating and Project Management — 2 credits**
The Construction Estimating and Project Management course will link construction estimating with project management and scheduling.

Lecture hours: 16
Lab/Clinic hours: 32

Prerequisite(s): CON510 Construction Technology Lab III

Course Fee:

**CON302 Building Science I — 1 credits**
Students will learn building science principles and methods to determine how thermal energy transfer, air infiltration and ex-filtration, internal and external air pressures, moisture migration, and durable design strategies apply to today’s residential design and construction industry.

Lecture hours: 16
Lab/Clinic hours:

Course Fee:

**CON372 Technical Portfolio Design — 2 credits**
This course provides students with the writing and research skills necessary to compile a personal portfolio documenting their prior education, occupational training, and work experiences.

Lecture hours: 32
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was IT237U

**CON373 Technical Presentation — 3 credits**
This course highlights essential skills and provides the opportunity for students to develop expertise in both writing for and making technical presentations.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was IT239U

**CON386 Sustainable Design — 1 credits**
The Sustainable Design Course is an overview of the concepts and strategies involved in sustainable design and construction. The course covers the history of sustainable design, LEED categories, Build It Green, USGBC, NAHB, and local and federal agencies overseeing and mandating green design. Also included are discussions of Green Point Raters, LEED AP, and additional certification opportunities along with market advantages and "Greening your business."

Lecture hours: 16
Lab/Clinic hours:

Course Fee:

**CON510 Construction Technology Lab 3 — 3 credits**
The Construction Technology Lab III course will provide students with the opportunity to utilize the knowledge they have gained in their previous construction courses with hands-on applications to construction projects. This course will require that students use their knowledge of construction codes and construction documents and computer aided drafting to provide detailed drawings adhering to the International Energy Conservation Code and Universal Design Principle.

Lecture hours: 0
Lab/Clinic hours: 96

Prerequisite(s): CON146 Construction Technology Lab 2

Course Fee: $50.00

**CON512 Construction Technology Lab 4 — 3 credits**
The Construction Technology Lab IV course will provide students with the opportunity to utilize the knowledge they have gained in their previous construction, energy, building science, and design courses with hands-on applications to construction projects. This course will require students to use their knowledge of sustainable construction principles; adhering to the International Energy Conservation Code and Universal Design principles.

Lecture hours: 96
Lab/Clinic hours:

Prerequisite(s): CON510 Construction Technology 3

Course Fee: $50.00

**CRJ100 Introduction to Criminal Justice — 3 credits**
This course examines the day-to-day operation of criminal justice in our society. Emphasis is on the inter-relationships of the components of law enforcement, the courts, corrections, and the juvenile justice system.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was CJ102T
**CRJ110 Patrol Procedures — 3 credits**
This course is a study of basic police operations, the types of patrol, and communication techniques. The focus is on investigating the requirements for a patrol officer.

Lecture hours: 48
Lab/Clinic hours:

Other Requirements: Must be enrolled in Police Science

Course Fee:

Prior to Fall 2006 the course number was PL102U

**CRJ114 Criminal Justice Computer Applications — 1 credits**
This course will introduce the basic functions of the Criminal Justice computer software and its use in the field of law enforcement.

Lecture hours: 0
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was PL111U

**CRJ120 Introduction to Corrections — 3 credits**
This course will provide an introductory examination of corrections in the United States. The central theme of the course will be to critically analyze corrections as an integral part of the overall criminal justice system in America.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was CJ108T

**CRJ131 Criminal Law and Procedure — 3 credits**
This course reviews the historical development of criminal law and its use by the criminal justice system. Emphasis is placed on evaluation of an offense, elements present, case preparation and the effects on the criminal justice system from initial contact to the conclusion of the trial process.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): CRJ100 Introduction to Criminal Justice

Course Fee:

Prior to Fall 2006 the course number was PL230U

**CRJ132 Constitutional Law — 3 credits**
This course examines the principles of Constitutional Law utilizing a case study from the United States Supreme Court decisions and examines the judicial legal process. Emphasis is on the nature of due process and the right of criminal defendants.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): CRJ131 Criminal Law and Procedure

Course Fee:
CRJ135 Criminal Evidence — 3 credits
Rules of evidence are essential to criminal justice system operations. This course will examine historical developments concerning evidence, types of evidence, witnesses, and the procedures used to regulate evidence.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): A minimum grade of C in CRJ100 Introduction to Criminal Justice.

Other Requirements: Enrollment limited to Police Science students.

Course Fee:

CRJ141 Criminal Investigation — 3 credits
This course examines the techniques and procedures used to investigate crimes.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): A minimum grade of C in CRJ100 Introduction to Criminal Justice.

Course Fee:

CRJ143 Police Operations — 3 credits
This course examines the operational aspects of policing to include patrol theories and methods, crime response, operational skills, and factors that influence police operations.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): A minimum grade of C in CRJ100 Introduction to Criminal Justice.

Course Fee:

CRJ151 Defensive Tactics — 2 credits
This course provides instruction on self defense and control techniques necessary for law enforcement. Emphasis is placed on physical fitness, officer safety, criminal and civil liability.

Lecture hours: 16
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of C in CRJ100 Introduction to Criminal Justice, CRJ237 Criminal and Constitutional Law, CRJ320 Criminal Justice Ethics, and CRJ285 Physical Conditioning for Public Services.

Other Requirements: Enrollment limited to Police Science students.

Course Fee: $30.00

CRJ200 Criminology — 3 credits
This course explores theories of factors that influence criminal behavior, and analyzes criminal behavior in relationship to other social problems.

Lecture hours: 48
Lab/Clinic hours:
**CRJ201 Juvenile Delinquency — 3 credits**
This course is an investigation of the social and legal definitions of juvenile delinquency and its causes. It also focuses on the administration of juvenile court, probation and parole, and assessment of present and potential prevention programs.

Lecture hours: 48
Lab/Clinic hours:

**CRJ212 Community-Oriented Policing — 3 credits**
This course presents the belief that by working together the police and the community can make safer neighborhoods. Emphasis is on the need of those who are culturally, racially, or socio-economically different from the mainstream, the physically or mentally challenged, the elderly, young, and victims.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): CRJ110 Patrol Procedures

**CRJ216 Employment Strategies for Criminal Justice — 2 credits**
This course prepares Police Science students for the steps involved in securing a position in law enforcement. It includes an introduction to the job search process, including the resume, cover letter, and job interview. The course also covers information unique to the law enforcement selection process.

Lecture hours: 32
Lab/Clinic hours:

Other Requirements: Enrollment limited to Police Science students.

Course Fee: $85.00

**CRJ233 Probation, Parole, Community-Based Corrections — 3 credits**
This course examines probation and parole practices related to community-based corrections programs throughout the United States. Emphasis is placed on community-based programs for offenders, administration and legal issues of the programs, trends in probation, parole, and related community-based programs.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): CRJ100 Intro to Criminal Justice and CRJ120 Intro to Corrections

**CRJ234 Traffic Law — 2 credits**
This course provides in depth examination of the State of Iowa traffic laws, and how traffic code enforcement enhances public safety.
Lecture hours: 32
Lab/Clinic hours:

Prerequisite(s): A minimum grade of C in CRJ100 Introduction to Criminal Justice.

Course Fee:

**CRJ237 Criminal and Constitutional Law — 3 credits**
This course will review the historical development of constitutional law, the philosophy of law, and the current impact on law enforcement officials. The judicial process will be examined to better understand the societal and political influences that impact current day constitutional decisions. A review of the current constitutional protections afforded to an individual. The course will also provide an examination of the elements of common offenses and the procedural safeguards in the criminal process.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

**CRJ242 Applied Criminalistics — 3 credits**
This course concentrates on the pre-serving, photography, and collection of evidence. It also includes the management of a crime scene and the sketching of the scene.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee: $30.00

Prior to Fall 2006 the course number was PL203U

**CRJ244 Advanced Accident Investigation — 3 credits**
This course covers the fundamentals of traffic investigation to include officer response, scene management, measurements, and report preparation.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): A minimum grade of C in CRJ100 Introduction to Criminal Justice.

Course Fee: $50.00

Prior to Fall 2006 the course number was PL134U

**CRJ252 Basic Firearms — 1 credits**
This course covers the fundamentals of using a firearm with emphasis on safety, care, and proficient use of firearms to law enforcement standards.

Lecture hours: 32
Lab/Clinic hours:

Prerequisite(s): A minimum grade of C in CRJ100 Introduction to Criminal Justice.

Other Requirements: Enrollment limited to Police Science students.

Course Fee: $555.00

Prior to Fall 2006 the course number was PL210U

**CRJ254 Advanced Firearms — 1 credits**
This course is an extension of Basic Firearms. Emphasis is placed on improving skills in the use of firearms and providing instruction and practice involving stress situations.
Lecture hours: 0
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of C in CRJ100 Introduction to Criminal Justice.

Other Requirements: Enrollment limited to Police Science students.

Course Fee: $552.00

Prior to Fall 2006 the course number was PL240U

**CRJ258 Ethical Issues in Criminal Justice — 2 credits**
This course discusses ethical issues that arise in the criminal justice system. Specific attention is paid to the application of issues and theories that criminal justice officials deal with.

Lecture hours: 32
Lab/Clinic hours:

Prerequisite(s): CRJ100 Introduction to Criminal Justice and CRJ110 Patrol Procedures, or CRJ120 Introduction to Corrections, CRJ200 Criminology, and CRJ201 Juvenile Delinquency, and CRJ216 Employment Strategies for Criminal Justice.

Course Fee:

**CRJ266 Report Writing and Testifying — 3 credits**
Report writing and courtroom testimony skills are essential to detail officer activity and enable effective case prosecution. Report writing chronologically details officer investigative activity, and documents elements of a crime. Effective courtroom testimony is vital to the prosecution and resolution of civil and criminal cases.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): A minimum grade of C in ENG105 Composition I and CRJ100 Introduction to Criminal Justice.

Course Fee:

**CRJ282 Crime Scene Investigation — 3 credits**
This course involves the study of techniques and procedures used to investigate various crimes and crime scenes. The student will gain fundamental skills in photography, evidence preservation, collection, and processing; and scene measurement and documentation.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of C in CRJ100 Introduction to Criminal Justice.

Course Fee:

**CRJ285 Physical Conditioning for Public Services — 2 credits**
This course prepares public safety personnel for the physical demands of public safety entrance testing and work demands.

Lecture hours: 16
Lab/Clinic hours: 32

Course Fee:

**CRJ299 Current Issues in Criminal Justice — 2 credits**
This is a capstone course examining the current issues in the criminal justice system.

Lecture hours: 32
Lab/Clinic hours:

Other Requirements: Program advisor consent.

Course Fee:

**CRJ315 Crisis Intervention — 3 credits**
This course uses a criminal justice perspective to examine the methods and techniques of crisis intervention, causative factors, typologies of those involved, and psycho-social factors of crisis situations. A certificate in Mental Health First Aid is included.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): A minimum grade of C in CRJ100 Introduction to Criminal Justice and CRJ237 Criminal and Constitutional Law.

Course Fee:

**CRJ316 Juvenile Justice — 3 credits**
This course examines the juvenile justice system from a practitioner perspective. It provides operational knowledge of how law enforcement, the courts, and correctional facilities navigate the juvenile offender.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): A minimum grade of C in CRJ100 Introduction to Criminal Justice.

Course Fee:

**CRJ317 White Collar Crime — 3 credits**
This course examines white collar crime as a social and criminal justice problem, the costs to society, explanations for behavior, and investigative techniques.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): A minimum grade of C in CRJ100 Introduction to Criminal Justice and a minimum grade of C in CRJ237 Criminal and Constitutional Law.

Course Fee:

**CRJ318 Crime Analysis — 3 credits**
This course enables the student to use intelligence and analytic data to identify and inform tactical, strategic, and administrative crime analysis functions.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): A minimum grade of C in CRJ100 Introduction to Criminal Justice

Course Fee:

**CRJ320 Criminal Justice Ethics — 3 credits**
An examination of ethical issues in the criminal justice system with an emphasis on reasoning and decision making for professional competence.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:
CRJ322 Tactical Police Operations — 2 credits
This course challenges student skills and decision making within scenario based learning activities.

Lecture hours: 16
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of C in CRJ151 Defensive Tactics, CRJ254 Advanced Firearms, and EMS114 Emergency Medical Responder.

Course Fee:

CRJ928 Independent Study — 1 credits
This course provides opportunity for a student to focus previous course work and knowledge on a special issue as well as provide for individualized exploration of topics pertinent to the student's projected objectives within any recognized discipline. Students can earn 1-3 credits.

Lecture hours: 0
Lab/Clinic hours:

Other Requirements: Faculty consultation is required prior to registration for this course.

Course Fee:

CRJ941 Practicum — 4 credits
Student field experience in an appropriate criminal justice agency. Placement based on approval of faculty advisor, department chair, and host agency.

Lecture hours: 16
Lab/Clinic hours:
Co-op Hours: 192

Prerequisite(s): A minimum grade of D- in CRJ100 Introduction to Criminal Justice and CRJ244 Advanced Accident Investigation.

Course Fee: $50.00

Prior to Fall 2006 the course number was PL208U

CRJ952 Internship — 2 credits
This course requires 128 hours of supervised placement with a law enforcement agency. Course eligibility requires criminal background check. Placement dependent on agency assessment of student fitness to meet hiring requirements. Instructor consent required.

Lecture hours: 0
Lab/Clinic hours:
Co-op Hours: 128

Prerequisite(s): A minimum grade of C in CRJ100 Introduction to Criminal Justice, CRJ135 Criminal Evidence, CRJ143 Police Operations, CRJ234 Traffic Law, CRJ237 Criminal and Constitutional Law, CRJ244 Advanced Accident Investigation, CRJ282 Crime Scene Investigation, EMS114 Emergency Medical Responder, and CRJ151 Defensive Tactics.

Other Requirements: Enrollment limited to Police Science students.

Course Fee:

CRJ955 Field Observation — 3 credits
Student field experience in an appropriate correctional agency. Placement based on approval of faculty advisor and host agency.

Lecture hours: 16
Lab/Clinic hours:
Co-op Hours: 128

Prerequisite(s): CRJ100 Intro to Criminal Justice and CRJ120 Intro to Corrections

Other Requirements: Enrollment is restricted to second year Police Science students who have a minimum 2.00 cumulative GPA and have successfully completed advisor approved courses.

Course Fee:

Prior to Fall 2006 the course number was CJ219T

**CRR306 Introduction to Collision Repair — 6 credits**
In this course students receive training on the proper handling of hazardous waste and EPA issues together with technical information about specific auto body safety and health situations. Specific training is provided in tools/equipment usage, parts assembly, filler application, and straightening techniques. Students will also receive training in auto body welding.

Lecture hours: 48
Lab/Clinic hours: 144

Course Fee: $115.00

Prior to Fall 2006 the course number was AR140U

**CRR331 Basic Collision Procedures — 6 credits**
This course covers specific collision tool and equipment usage, panel repair and alignment, sheet metal pulling and stress relieving, mobile glass servicing, trim removal and replacement, and basic collision repair techniques. Performance tasks will require students to work in actual production style situations. Projects will include straightening collision damage and filler application, utilizing corrosion resistant undercoat/primer.

Lecture hours: 48
Lab/Clinic hours: 144

Prerequisite(s): CRR306 Introduction to Collision Repair

Course Fee: $95.00

Prior to Fall 2006 the course number was AR142U

**CRR510 Collision Production Technology — 7 credits**
In this course students will receive information and training in common collision repair procedures performed by production collision centers. Specific training is provided in straightening procedures for light and heavy collision damage, specialized tools and equipment, and air conditioning systems relating to collision damage.

Lecture hours: 64
Lab/Clinic hours: 144

Prerequisite(s): CRR876 Refinishing Production

Course Fee: $105.00

Prior to Fall 2006 the course number was AR208U

**CRR657 Advanced Collision Repair — 7 credits**
In this course students will receive hands on experience involving high production practices used by industry collision repair technicians. Students will receive training in collision related suspension and steering systems. Additional training will be received in drive train repairs, wheel alignment, brakes, and other vehicle collision related repairs, tools, and equipment.

Lecture hours: 64
Lab/Clinic hours: 144
Prerequisite(s): CRR510 Collision Production Technology
Course Fee: $109.00
Prior to Fall 2006 the course number was AR222U

**CRR806 Introduction to Refinishing — 6 credits**
Students receive training in use of sanding abrasives, refinishing products, tools and equipment, masking procedures, corrosion protection, and paint preparations. A thorough understanding of personal health and safety issues is also obtained.

Lecture hours: 48
Lab/Clinic hours: 144
Course Fee: $180.00
Prior to Fall 2006 the course number was AR110U

**CRR836 Refinishing II — 6 credits**
Fundamentals of spraying automotive paints are provided in this course together with the uses and application of various types of top coat systems and color mixing/matching using computers.

Lecture hours: 48
Lab/Clinic hours: 144
Prerequisite(s): CRR806 Introduction to Refinishing
Course Fee: $165.00
Prior to Fall 2006 the course number was AR112U

**CRR876 Refinishing Production — 6 credits**
This course provides instructional experiences in heavy collision repairs and techniques, collision estimating, and skill development in major auto body repair techniques.

Lecture hours: 48
Lab/Clinic hours: 144
Prerequisite(s): CRR331 Basic Collision Procedures and CRR836 Refinishing II
Course Fee: $165.00
Prior to Fall 2006 the course number was AR204U

**CRR877 Refinishing Applications — 7 credits**
This course provides training in paint repair procedures used to match and blend partial or full panel refinishing repairs. Students will be exposed to various procedures used in refinishing systems. Students will also receive training in basic electrical fundamentals and basic air bag systems as they apply to collision and refinishing repairs.

Lecture hours: 64
Lab/Clinic hours: 144
Prerequisite(s): CRR876 Refinishing Production
Course Fee: $200.00
Prior to Fall 2006 the course number was AR206U

**CRR881 Refinishing Production Technology — 7 credits**
In this course students will receive hands on experience involving high production practices used by industry technicians. Students will be exposed to time management performance tasks involved in numerous areas of refinishing. Skill levels will be enhanced for various refinish tasks such as paint preparation, masking procedures, blending, and overall refinishing.

Lecture hours: 64
Lab/Clinic hours: 144

Prerequisite(s): CRR877 Refinishing Applications

Course Fee: $170.00

Prior to Fall 2006 the course number was AR220U

**CSC110 Introduction to Computers — 3 credits**

An introductory course in electronic information processing and information system management designed to provide the students with a general understanding of computer hardware and software and the facility to use this knowledge in the creation and management of useful information. Students will be given hands-on experience with operating system, word processing, database management, presentation and spreadsheet software. Exposure to and use of the Internet, including security and privacy concerns, is an integral part of the course. Basic computer literacy is expected for students entering this course.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): The ability to enter data using a computer keyboard at a rate of no less than 15 words per minute on a three-minute timing.

A minimum grade of 'C' in RDG039 College Preparatory Reading II or appropriate Compass score.

Other Requirements: The ability to enter data using a computer keyboard at a rate of no less than 15 words per minute on a three-minute timing.

Course Fee:

Prior to Fall 2006 the course number was CL110T

**DEA103 Orientation to Dental Assisting — 2 credits**

This course introduces students to dentistry, certification, dental terminology, and legal and ethical aspects of dental practice. Concepts and procedures of preventive dentistry and oral health education are also included.

Lecture hours: 32
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was DA106U

**DEA258 Dental Anatomy — 4 credits**

This course presents oral and dental structures, head and neck anatomy, oral embryology and histology, and the relationship of oral and dental anatomy to dental procedures and treatment. Also included is a study of basic microbiology, disease transmission, and the relationship of disease processes.

Lecture hours: 64
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was DA102U

**DEA263 Dental Science II — 2 credits**
This course provides students with basic understanding of biomedical and dental sciences including: Oral pathology and disease processes, pharmacology and therapeutics, emergency treatment, oral hygiene, and nutrition and dietary considerations for dental patients.

Lecture hours: 32
Lab/Clinic hours:

Prerequisite(s): BIO158 Basic Anatomy and Physiology, BIO160 Basic Anatomy and Physiology Lab, DEA103 Orientation to Dental Assisting

Course Fee:

Prior to Fall 2006 the course number was DA130U

**DEA302 Dental Radiography — 3 credits**
This course covers the principles, properties, techniques and protective procedures involved with exposure of dental radiographs. Primary emphasis is on the development of skill proficiency in techniques of intraoral and extraoral dental radiography.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee: $90.00

Prior to Fall 2006 the course number was DA104U

**DEA412 Dental Materials I — 3 credits**
This course provides information related to various dental materials, their composition, classification, manipulation, preparation, and usage. Emphasis is given to materials commonly used in the practice of general dentistry.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was DA103U

**DEA417 Dental Materials II — 2 credits**
This course is a study of restorative materials; specifically gold, porcelain, denture resin, and other metals and their usage in dentistry. Additional laboratory procedures commonly performed in dental offices are also included.

Lecture hours: 16
Lab/Clinic hours: 32

Prerequisite(s): DEA412 Dental Materials I

Course Fee:

Prior to Fall 2006 the course number was DA133U

**DEA513 Chairside Assisting I — 4 credits**
This course is a study of basic operative and chairside assisting procedures; dental equipment, its function and maintenance; dental armamentarium, instrumentation, procedural tray setups, charting, development of clinical records, and patient screening procedures.

Lecture hours: 32
Lab/Clinic hours: 64

Course Fee: $75.00
Prior to Fall 2006 the course number was DA101U

DEA514 Chairside Assisting II — 2 credits
This course presents instruction in additional chairside assisting procedures including intraoral functions that are legally delegable to dental assistants in Iowa. All procedures are taught to the level of laboratory competence, and some procedures are taught to clinical competency levels. A study of patient behavior and considerations for special patients is also included.

Lecture hours: 16
Lab/Clinic hours: 32

Prerequisite(s): DEA513 Chairside Assisting I

Course Fee:

Prior to Fall 2006 the course number was DA131U

DEA556 Assisting Clinic I — 4 credits
This course provides students with selected clinical experiences in those basic chairside dental assisting procedures commonly performed in a general dental office. Facilities used will be primarily the school dental clinic and private dental offices. Students will assist dentists in accomplishing necessary dental procedures for patients while rotating through the clinical areas to obtain maximum clinical exposures and experiences. All clinical procedures are performed with supervision of participating dentists and instructors.

Lecture hours: 0
Lab/Clinic hours: 96

Other Requirements: A minimum grade of C in all Dental Assisting Semester I courses and/or departmental approval. Current CPR and Health Sciences Department Exposure Control Program, OSHA training, and HIPAA training.

Course Fee:

Prior to Fall 2006 the course number was DA135U

DEA577 Dental Assisting Clinic II — 4 credits
Application of knowledge and skill as students rotate through dental offices. General and specialty practices are included in rotations.

Lecture hours: 0
Lab/Clinic hours: 256
Co-op Hours: 256

Prerequisite(s): A minimum grade of C for all first and second semester courses in Dental Assisting and/or department approval; current CPR and Health Sciences Department Exposure Control Program.

Co-requisite(s): DEA591 Dental Assisting Seminar

Course Fee:

DEA591 Dental Assisting Seminar — 1 credits
Discussion and problem-solving from clinical practice. Provides an awareness of types of office situations and discussion of clinical aspects of dental assisting and dentistry. Oral reports and weekly evaluations are required.

Lecture hours: 16
Lab/Clinic hours:

Prerequisite(s): A minimum grade of C in all Dental Assisting program courses.

Co-requisite(s): DEA577 Dental Assisting Clinic II
**DEA603 Dental Specialties — 2 credits**

This course provides students with knowledge and understanding of dental procedures in the specialties of Endodontics, Oral Surgery, Prosthodontics, Pediatric Dentistry, Orthodontics, and Periodontics. Students are introduced to assisting responsibilities, instrumentation, and procedures of each of these specialties. Dental Public Health and Oral Pathology, as dental specialties, will also be included.

Lecture hours: 32

**Course Fee:**

Prior to Fall 2006 the course number was DA136U

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**DEA702 Dental Office Procedures — 2 credits**

This course is a study of basic responsibilities of dental office receptionists. Procedures included in the course are: management of patient records, filing, completion of insurance claim forms, basic bookkeeping, banking, appointment control, recall management, inventory control, credit and collection, and employer records management. Instruction is provided in computer applications relating to these office management procedures. Also included in this course is a study of office design and office management concepts.

Lecture hours: 32

**Course Fee:**

Prior to Fall 2006 the course number was DA134U

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**DHY115 Head and Neck Anatomy for Dental Hygienist — 2 credits**

This course familiarizes the student with the anatomy of the head and neck, oral structures. Knowledge of the anatomy of the head and neck and oral structures is an essential prerequisite of such courses as clinical dental hygiene.

Lecture hours: 32

**Other Requirements:** Admission to Dental Hygiene program.

**Course Fee:**

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**DHY116 Tooth Morphology — 1 credits**

This course will teach the anatomy and structure of each individual tooth crown and root. Permanent and primary dentitions will be studied with emphasis on identification, numbering systems, function, and application of instrumentation skills to each tooth surface.

Lecture hours: 16

**Other Requirements:** Admission to Dental Hygiene program.

**Course Fee:** $80.00

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**DHY121 Oral Histology and Embryology — 2 credits**

This course presents the anatomy of the tooth and its surrounding tissues on a microscopic level. The formation of the face before birth is studied and is followed by an examination of each part of the tooth and its surrounding structures during formation, eruption and function of both the primary and permanent dentitions.

Lecture hours: 32

**Course Fee:**
Other Requirements: Admission to the Dental Hygiene program.

Course Fee:

Prior to Fall 2006 the course number was DH118U

**DHY131 Pharmacology — 2 credits**
This course will provide the student with an academic background in the area of pharmacology with relation to the drugs used in the dental practice. The metric system, terminology, drugs and their specific reactions will be presented.

Lecture hours: 32
Lab/Clinic hours:

Prerequisite(s): CHM132 Introduction to Organic and Biochemistry and BIO159 Fundamentals of Anatomy & Physiology

Course Fee:

Prior to Fall 2006 the course number was DH211U

**DHY141 General and Oral Pathology — 3 credits**
This lecture course addresses concepts of both General and Oral Pathology. General Pathology content provides information regarding human disease and reviews major diseases of the human body, discussed by system. Oral Pathology content emphasizes pathological conditions of the head, neck and oral structures and relates this information to the Dental Hygiene Model.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): DHY121 Oral Histology & Embryology

Course Fee:

Prior to Fall 2006 the course number was DH128U

**DHY162 Oral Radiology — 2 credits**
Oral Radiology teaches the basic techniques of exposure of common types of dental radiographs, film processing procedures, setup and care of the darkroom, science of the x-ray beam, and operation of standard and panoramic x-ray equipment. Lifelike manikins for student practice are utilized and emphasis is placed on radiation safety procedures for both patient and operator.

Lecture hours: 16
Lab/Clinic hours: 48

Other Requirements: Admission to the Dental Hygiene program.

Course Fee: $535.00

Prior to Fall 2006 the course number was DH117U

**DHY175 Fundamentals of Clinical Dental Hygiene — 6 credits**
This course serves as a foundation to Clinical Dental Hygiene II, III, and IV. The student will learn the skills of dental hygiene practice and client management through simulated clinical situations as well as in lecture/discussion sessions.

Lecture hours: 48
Lab/Clinic hours: 96

Other Requirements: Admission to the dental hygiene program.
DHY187 Clinical Dental Hygiene II — 3 credits
This course is the first of three in a sequence that provides clinical experience. The student applies the Dental Hygiene Process of Care while working with actual clinic clients. The emphasis of this course is to achieve competency in basic assessment and preventative dental hygiene treatment skills.

Lecture hours: 0
Lab/Clinic hours: 144

Prerequisite(s): A minimum grade of 'C' in DHY175 Fundamentals of Clinical Dental Hygiene
A minimum grade of 'C' in DHY162 Oral Radiology

Co-requisite(s): DHY188 Clinical Dental Hygiene II Seminar

Course Fee: $235.00

DHY188 Clinical Dental Hygiene II Seminar — 1 credits
Dental Hygiene Practicum II complements Clinical Dental Hygiene II by supplying the theory behind the Dental Hygiene Process of Care. This course also introduces the theory behind basic procedures needed to provide comprehensive dental hygiene care.

Lecture hours: 16
Lab/Clinic hours:

Prerequisite(s): A minimum grade of C in DHY162 Oral Radiology and DHY175 Fundamentals of Clinical Dental Hygiene.

Co-requisite(s): DHY187 Clinical Dental Hygiene II

Course Fee:

DHY210 Introduction to Periodontology — 1 credits
This course will provide first year students the basic concepts and fundamentals of periodontal health and disease. The student will be able to relate this knowledge to the clinical setting.

Lecture hours: 16
Lab/Clinic hours:

Prerequisite(s): A minimum grade of C in DHY121 Oral Histology & Embryology.

Co-requisite(s): A minimum grade of C in DHY141 General and Oral Pathology.

Course Fee:

DHY211 Periodontology — 2 credits
An in-depth study of the healthy and diseased periodontium is covered in this course. The student will be able to relate this knowledge to the clinical setting.

Lecture hours: 32
Lab/Clinic hours:

Prerequisite(s): DHY141 General and Oral Pathology BIO159 Fundamentals of Anatomy & Physiology

Course Fee:

Prior to Fall 2006 the course number was DH217U

DHY222 Biomaterials for the Dental Hygienist — 3 credits
This course introduces the dental hygiene student to the materials commonly employed in the practice of
dentistry and, in particular, to those materials utilized by the dental hygienist. Through lecture sessions the makeup and properties of the various materials such as plaster and stone, impression material, amalgam, and cements are presented as well as their relationship to one another. Through laboratory experience the student learns techniques in preparation, mixing, handling, and storage of these materials.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): CHM122 Introduction to General Chemistry

Course Fee:

Prior to Fall 2006 the course number was DH120U

**DHY240 Ethics and Jurisprudence — 1 credits**
This course presents background on the theory, philosophy, and ethics for dental hygiene and the profession. Legal aspects of practice are presented as well as aspects of entry into practice and job seeking skills.

Lecture hours: 16
Lab/Clinic hours:

Prerequisite(s): A minimum grade of 'C' in DHY175 Fundamentals of Clinical Dental Hygiene

Course Fee:

Prior to Fall 2006 the course number was DH224U

**DHY254 Community Oral Health I — 2 credits**
The purpose of this two-course series is to provide the student with a background in the development and functions of federal, state, and local health systems and to prepare the student to participate in community health activities.

Lecture hours: 32
Lab/Clinic hours:

Prerequisite(s): DHY185 Clinical Dental Hygiene II, DHY260 Oral Health Education, SOC110 Introduction to Sociology

Course Fee:

Prior to Fall 2006 the course number was DH213U

**DHY255 Community Oral Health II — 2 credits**
This is a continuation of DHY254 Community Oral Health I.

Lecture hours: 32
Lab/Clinic hours: 0

Prerequisite(s): A minimum grade of c in DHY254 Community Oral Health I.

Course Fee:

Prior to Fall 2006 the course number was DH223U

**DHY260 Oral Health Education — 2 credits**
This course provides the fundamental concepts of growth and development and an in depth analysis of the components of the learning principles. The student will have the opportunity to explore the collaborative model for effective communication between the client and the clinician. The course will also place emphasis on the case based study of clients with special needs.

Lecture hours: 32
Lab/Clinic hours:

Prerequisite(s): DHY175 Fundamentals of Clinical Dental Hygiene

Course Fee:

Prior to Fall 2006 the course number was DH130U

**DHY271 Pain Control — 2 credits**

This course provides the knowledge and skills necessary for the student to perform pain control techniques competently. The course will discuss both the content needed to perform local anesthesia and to perform nitrous oxide/oxygen administration and monitoring.

Lecture hours: 32
Lab/Clinic hours:

Prerequisite(s): DHY113 Dental Hygiene Anatomical Sciences, DHY185 Clinical Dental Hygiene II

Course Fee:

Prior to Fall 2006 the course number was DH215U

**DHY272 Interdisciplinary Health Care — 2 credits**

This course will use specialists in the varied health fields to make the student aware of the interrelationships between these specialties and dental hygiene. Additionally, the course promotes an understanding of the potential dental hygiene practice settings through observations made in rotation in the community.

Lecture hours: 16
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of C in DHY254 Community Oral Health I and DHY297 Clinical Dental Hygiene III.

Course Fee:

Prior to Fall 2006 the course number was DH230U

**DHY297 Clinical Dental Hygiene III — 4 credits**

This course enables the students to provide comprehensive dental hygiene care to meet the total oral health needs of each client, including referrals for treatment. Students will progressively increase their clinical abilities toward levels of proficiency required for entry level as measured by fulfillment of the clinic competencies for the semester.

Lecture hours: 0
Lab/Clinic hours: 192

Prerequisite(s): A minimum grade of C in DHY187 Clinical Dental Hygiene II and DHY188 Clinical Dental Hygiene II Seminar.

Co-requisite(s): DHY211 Periodontology and DHY298 Clinical Dental Hygiene III Seminar

Course Fee:

**DHY298 Clinical Dental Hygiene III Seminar — 2 credits**

This course will introduce adjunctive dental hygiene procedures/techniques and disease control theory along with research methodology. The course also expands on instrumentation techniques, case-based problem solving and radiographic interpretation.

Lecture hours: 16
Lab/Clinic hours: 32
Prerequisite(s): A minimum grade of C in DHY187 Clinical Dental Hygiene II and DHY188 Clinical Dental Hygiene II Seminar.

Co-requisite(s): DHY297 Clinical Dental Hygiene III and DHY271 Pain Control

Course Fee:

**DHY307 Clinical Dental Hygiene IV — 4 credits**  
This course is the final preparation for the students in clinical practice. When the course is completed, the student will have the proficiency and skill to maintain the ideals of the dental hygiene profession.

Lecture hours: 0  
Lab/Clinic hours: 192  
Prerequisite(s): A minimum grade of C in DHY271 Pain Control, DHY297 Clinical Dental Hygiene III, and DHY298 Clinical Dental Hygiene III Seminar.

Course Fee: $1,765.00

**DHY308 Clinical Dental Hygiene IV Seminar — 1 credits**  
This course is intended to incorporate lecture and clinical practicum time. It will allow for more demonstration, mentoring, remediation, critiques and methodology for the students as they prepare for dental hygiene licensure.

Lecture hours: 16  
Lab/Clinic hours:  
Prerequisite(s): A minimum grade of C in DHY271 Pain Control, DHY297 Clinical Dental Hygiene III, and DHY298 Clinical Dental Hygiene III Seminar.

Co-requisite(s): DHY307 Clinical Dental Hygiene IV

Course Fee: $2,465.00

**DRA107 Theatrical Arts and Society — 3 credits**  
This course introduces students to a literary appreciation of drama throughout history. Emphasis will be on reading, discussing, and evaluating various plays representative of their era and genre along with discussion of live theatre, film and television performances, and how these kinds of dramatic narratives interrelate with societies of the past and present.

Lecture hours: 48  
Lab/Clinic hours:  
Course Fee:  
Prior to Fall 2006 the course number was LR105T

**DRA110 Introduction to Film — 3 credits**  
This is an introductory course-exploring cinema as art with an overview of film-making techniques. Emphasis is on watching movies and clips selected based on their demonstration of various techniques, artistic excellence, and genre. Narrative, documentary, experimental, and art films, including international films, will be viewed and analyzed.

Lecture hours: 48  
Lab/Clinic hours:  
Course Fee:  
Prior to Fall 2006 the course number was FA108T

**DRF113 Fundamentals of Technical Drafting — 3 credits**
This course introduces the student to the drafting environment and includes basic knowledge and fundamental skills of manual drafting. Special emphasis is placed on reproducible line quality, lettering, geometric constructions, and layout techniques.

Lecture hours: 16
Lab/Clinic hours: 64
Course Fee: $188.00

Prior to Fall 2006 the course number was IT103U

**DSL312 Fundamentals of Diesel Engines, Transmissions and Differentials — 12 credits**
Students are introduced to diesel engine application, design, construction, theory and operating principles of diesel engines, transmissions and differentials. This course also covers diagnosis, disassembly, and assembly of diesel engines, transmission and differentials.

Lecture hours: 80
Lab/Clinic hours: 224
Course Fee:

Prior to Fall 2006 the course number was GT206U

**DSL377 Diesel Engine Rebuild — 7 credits**
Students are introduced to diesel engine application, design, construction, theory, and operating principles. This course also covers diagnosis, disassembly, and assembly of diesel engines.

Lecture hours: 80
Lab/Clinic hours: 96
Course Fee:

Prior to Fall 2006 the course number was PT134U

**DSL447 Diesel Fuel Systems — 7 credits**
This course focuses on diagnosis, theory, and repair of mechanical and electronic fuel systems used in transportation, agriculture, and construction equipment.

Lecture hours: 80
Lab/Clinic hours: 96
Course Fee:

Prior to Fall 2006 the course number was PT133U

**DSL807 Diesel Truck Equipment Repair — 7 credits**
This course is designed to give students the opportunity to apply competencies previously achieved to repair and service projects. Also included is theory and operation, diagnosis, and repair of heating and air conditioning systems. Instruction will also cover use of computers for maintenance scheduling.

Lecture hours: 80
Lab/Clinic hours: 96
Prerequisite(s): AGM107 Gas Engine Rebuild, AGM113 Hydraulics I, AGM104 Electricity, DSL447 Diesel Fuel Systems, DSL377 Diesel Engine Rebuild, AGM327 Equipment Maintenance, AGM333 Electronics, AGM224 Hydraulics II
Course Fee:

Prior to Fall 2006 the course number was DI231U
ECE103 Introduction to Early Childhood Education — 3 credits

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

ECE120 Communication with Families — 2 credits
This course is designed to give students a basic understanding of good working relationships with educators, families, and community resources. The value of this relationship to all parties involved is examined.

Lecture hours: 32
Lab/Clinic hours:

Prerequisite(s): ECE146 Curriculum: Three Through Five Years, ECE145 Curriculum, Environment and Teaching Materials

Course Fee:
Prior to Fall 2006 the course number was CD234U

ECE122 Parenting Relationships — 2 credits
This course is an introduction to the general subject matter of family relations. Students will study family systems and parenting in a changing society.

Lecture hours: 32
Lab/Clinic hours:

Course Fee:
Prior to Fall 2006 the course number was CD130U

ECE125 School Age Care — 2 credits
This course focuses on the unique care necessary for school-age children. Criteria for organizing a positive physical environment coupled with state licensing regulations, center policies, and interactions with families are examined. Students will look at the needs of school-age children and explore methods of addressing these needs in a group care setting.

Lecture hours: 32
Lab/Clinic hours:

Course Fee:
Prior to Fall 2006 the course number was CD135U

ECE133 Child Health, Safety and Nutrition — 3 credits
Focuses on current concepts in the fields of health, safety and nutrition and their relationship to the growth and development of the young child ages birth to eight. Blends current theory with practical applications and assessments. Includes the influences of families and diversity on health, safety, and nutrition in early childhood settings.

Lecture hours: 48
Lab/Clinic hours:

Course Fee: $70.00
Prior to Fall 2006 the course number was CD104U
ECE158 Early Childhood Curriculum I — 3 credits
Focuses on the development, implementation and assessment of appropriate environments and curricula for young children ages three through eight. Students prepare to utilize developmentally appropriate practices in a context of family and culturally sensitive care. Emphasis is on understanding children's development stages and developing appropriate learning opportunities, interactions and environments in the following areas: dramatic play, art, music, fine and gross motor play.
Lecture hours: 48
Lab/Clinic hours:

Course Fee:

ECE159 Early Childhood Curriculum II — 3 credits
Focuses on the development, implementation and assessment of appropriate environments and curricula for young children ages three through eight. Students prepare to utilize developmentally appropriate practices in a context of family and culturally sensitive care. Emphasis is on understanding children's development stages and developing appropriate learning opportunities, interactions and environments in the following areas: emergent literacy, math, science, technology and social studies.
Lecture hours: 48
Lab/Clinic hours:

Course Fee:

ECE170 Child Growth and Development — 3 credits
Reviews typical and atypical development of children from conception to adolescence in all developmental domains. Presents interactions between child, family and society within a variety of community and cultural contexts. Examines theories associated with our understanding of children.
Lecture hours: 48
Lab/Clinic hours:

Course Fee:

ECE221 Infant/Toddler Care and Education — 3 credits
This course focuses on care, education, and assessment of children from birth to thirty-six months. The course prepares students to utilize developmentally appropriate practices including responsive care giving, routines as curriculum, importance of relationships with diverse families, and a focus on the whole child in inclusive settings.
Lecture hours: 48
Lab/Clinic hours:

Course Fee:
Prior to Fall 2006 the course number was CD131U

ECE243 Early Childhood Guidance — 3 credits
Lecture hours: 0
Lab/Clinic hours:

Course Fee:

ECE250 Advanced Curriculum Planning — 3 credits
This course acquaints students with center environment planning and evaluation. It addresses the role of the teacher as well as program evaluation for early childhood centers. Students also look at community resources for expanding the center environment.
Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): ECE 158 Early Childhood Curriculum I, ECE 159 Early Childhood Curriculum II

Course Fee:

Prior to Fall 2006 the course number was CD203U

**ECE260 Current Topics and Issues in Child Care — 2 credits**
National, state and local topics and issues impacting childcare are examined.

Lecture hours: 32
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was CD233U

**ECE274 Field Experience I — 2 credits**
Students participate in a practicum in a licensed childcare center for children 6-weeks through 5-years old. The practicum provides students experience working directly with children in a supervised setting. Students will gain knowledge of child guidance and group management techniques and will have controlled teaching opportunities.

Lecture hours: 16
Lab/Clinic hours:
Co-op Hours: 64

Prerequisite(s): ECE146 Curriculum: Three Through Five Years

Course Fee:

Prior to Fall 2006 the course number was CD141U

**ECE284 Field Experience II — 2 credits**
The field experience provides on-the-job training, practical application of knowledge gained in the classroom, documenting observations of children, and an opportunity to participate with a child care team involved with children ages 3 through 5.

Lecture hours: 0
Lab/Clinic hours: 128

Prerequisite(s): ECE158 Early Childhood Curriculum I and ECE159 Early Childhood Curriculum II

Course Fee:

**ECE285 Exceptional Child — 2 credits**
Students are introduced to areas of special needs which may be present in children within their care, support services that are available, and how to obtain and provide special assistance for these children.

Lecture hours: 32
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was CD204U

**ECE290 Early Childhood Program Administration — 3 credits**
Skills in planning, implementing, and evaluating programming are introduced. Staff supervision and evaluation, in-service training and orientation, and harmonious working relationships, are other topics included in this course.
Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): ECE146 Curriculum: Three Through Five Years, ECE145 Curriculum, Environment and Teaching Materials

Course Fee:

Prior to Fall 2006 the course number was CD232U

**ECE298 Child Development Career Strategies — 2 credits**

This course prepares students for becoming an employee and employer in child care settings. It includes the strategies involved in seeking and securing a position in child care along with recruiting and employing a child care worker. Included for the job seeker will be an introduction to the job search process, including resume writing, developing cover letters, and the interview process. Included for the employer will be recruitment procedures, laws governing the hiring of child care employees, screening of applicants, and conducting and evaluating interviews.

Lecture hours: 32
Lab/Clinic hours:

Other Requirements: Must be enrolled in the Early Childhood Education program.

Course Fee:

Prior to Fall 2006 the course number was CD236U

**ECE944 Field Experience Seminar I — 1 credits**

Field Experience Seminar 1 provides support for the systemic refinement of skills necessary for a successful experience in the field. Professional relationships and behaviors, appropriate adult/child interactions, curriculum planning, and experiences in the field will be emphasized.

Lecture hours: 16
Lab/Clinic hours:

Course Fee:

**ECE945 Field Experience Seminar II — 1 credits**

Field Experience II Seminar provides support for the systematic refinement of the skills necessary for a successful Field Experience II experience through receiving feedback on assignments and engaging in discussions of relevant topics with instructors and peers.

Lecture hours: 16
Lab/Clinic hours:

Course Fee:

**ECN110 Introduction to Economics — 3 credits**

This is a one-semester survey course covering basic economic issues and applications. The course includes such topics as supply, demand, pricing and production decisions by firms, consumer decision making, national income and output determination, unemployment and inflation, Classical and Keynesian theories, money and banking, and fiscal and monetary policies. International issues will also be discussed. No credit given if credit earned in ECN-120 Principles of Macroeconomics or ECN-130 Principles of Microeconomics.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was EC100T
ECN120 Principles of Macroeconomics — 3 credits
Principles of supply and demand and the price mechanism will be presented. Descriptions and interactions of the consumer, business, government, and international sectors will be studied as well as their effects on output, employment, and growth in the economy. The course includes a study of the banking system and monetary policy, fiscal policy, economic growth, differing macroeconomic viewpoints, and international issues.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): A minimum grade of 'D-' in MAT063 Elementary Algebra or appropriate Math placement score.

Course Fee:
Prior to Fall 2006 the course number was EC101T

ECN130 Principles of Microeconomics — 3 credits
Principles of supply and demand, elasticity, and pricing will be studied. The course includes such topics as resource allocation of firms, pricing and output decisions in different market structures, and consumer choice theory. International issues and the world economy will be integrated into the course.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): A minimum grade of 'D-' in MAT063 Elementary Algebra or appropriate Math placement score.

Course Fee:
Prior to Fall 2006 the course number was EC102T

EDU214 Exploring PK-12 Education — 2 credits
This course is designed to give students the opportunity to gain insight into the teaching profession and examine what it means to be a PK-12 teacher. Students will critically evaluate teaching as their chosen or possible profession. An overview of the skills and knowledge they will need to be successful professionals will be investigated. Current and future trends in public education will be examined.

Lecture hours: 32
Lab/Clinic hours:

Course Fee:

EDU216 Introduction to Teaching — 3 credits
This course is designed to help students become aware of the foundations of teaching, understand the realities of teaching, and gain insight into the process of teaching. It is provided for students who may be undecided about teaching. The course will investigate the tools and information necessary to make a rational and thoughtful choice about pursuing the teaching profession.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:
Prior to Fall 2006 the course number was ED101T

EDU223 Multicultural Education — 3 credits
This course introduces conceptual, theoretical, and philosophical issues in Multicultural Education (MCE). Students learn instructional strategies for making their future multicultural classrooms into effective learning communities that are collaborative, inclusive, developmentally appropriate, and globally oriented.

Lecture hours: 48
Lab/Clinic hours:
**EDU235 Children’s Literature — 3 credits**

This course is designed to present the dynamics of children's literature. It promotes the selection and evaluation of literature for children as well as how to engage young readers in a variety of literary genres. The course will emphasize literature as a key element of the reading curriculum, grades Preschool-8 and beyond. The course will be relevant to those interested in education and literacy.

Lecture hours: 48
Lab/Clinic hours: 

**EDU240 Educational Psychology — 3 credits**

The study of learning as it relates to cognitive, affective, and psychomotor processes; personal, social and moral development; abilities and exceptionality and motivation, measurement and classroom management.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): PSY111 Introduction to Psychology and PSY121 Developmental Psychology
Co-requisite(s): EDU920 Field Experience

**EDU246 Including Diverse Learners — 3 credits**

Students are introduced to the issues and practices regarding the inclusion of diverse student populations in general education settings. The needs of all students including general education, special education, and gifted will be emphasized. Strategies for adapting curriculum and the classroom will be examined. Support services that are available to teachers and students will be explored.

Lecture hours: 48
Lab/Clinic hours:

**EDU255 Technology in the Classroom — 3 credits**

This is a basic course in the planning and practical use of technology resources to enhance and extend the learning process in the face to face classroom, hybrid, and online learning. Students will be exposed to various ways of thinking about educational media and its applications in the classroom. The course is designed to provide the student with experiences that will enable them to select, arrange, utilize, and produce a variety of resources to enhance student learning through their creation of a Thematic Unit.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): EDU240 Educational Psychology or EDU235 Children's Literature

**EDU800 Exploring Math and Science Teaching — 1 credits**

Exploring Math & Science Teaching gives the student a chance to hear from effective, successful teachers of math and science on a weekly basis. With assistance from a cooperating K-12 teacher, the student will experience an opportunity to conduct a lesson in an authentic math or science classroom in elementary
settings. This class provides an opportunity to sample the world of teaching math or science. Tuition for this one credit course is refunded upon successful completion of the class through the Iowa Math And Science Education Partnership.

Lecture hours: 0  
Lab/Clinic hours: 32

Course Fee:

EDU901 Academic Service Learning Experience — 1 credits
Students in this course develop and/or implement service learning projects to help the college’s community including the surrounding local community under the supervision of college faculty and in cooperation with the staff of community organizations and agencies.

Lecture hours: 32  
Lab/Clinic hours: 

Course Fee:

Prior to Fall 2006 the course number was ED230T

EDU920 Field Experience — 1 credits
This course provides an observation and participation experience to explore duties, roles, and responsibilities of teachers to the school community. This takes place in area schools under the direction and guidance of classroom teachers.

Lecture hours: 32  
Lab/Clinic hours: 

Course Fee:

Prior to Fall 2006 the course number was ED206T

EGR410 Principles of Engineering — 3 credits
This course explores technology systems and manufacturing processes using the methodology of project-based engineering problem solving. Learning activities explore a variety of engineering disciplines and address the social and political consequences of technological change.

Lecture hours: 16  
Lab/Clinic hours: 64

Course Fee:

EGR450 Computer Integrated Manufacturing — 3 credits
This course enhances computer modeling skills by applying principles of robotics and manufacturing automation to the creation of models of three-dimensional designs.

Lecture hours: 16  
Lab/Clinic hours: 64

Prerequisite(s): EGR400 PLTW Introduction to Engineering Design

Course Fee:

EGT108 Principles of Engineering — 3 credits
This course explores technology systems and manufacturing processes using the methodology of project-based engineering problem solving. Learning activities explore a variety of engineering disciplines and address the social and political consequences of technological change.

Lecture hours: 16  
Lab/Clinic hours: 64
Course Fee:

**EGT140 Fluid Power — 2 credits**
This is a course of study in the basic fluid power principles and components of fluid power systems.

Lecture hours: 16
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was IS104U, IT203U

**EGT144 Fluid Power Applications — 2 credits**
This course is a continuation study of fluid power systems and applications with particular emphasis on troubleshooting and performance evaluations.

Lecture hours: 16
Lab/Clinic hours: 32

Prerequisite(s): EGT140 Fluid Power EGT149 Fluid Power Systems II

Course Fee:

Prior to Fall 2006 the course number was IS156U

**EGT149 Fluid Power Systems II — 3 credits**
This is a continued study of fluid power components, their operations, and functions in circuit application, as well as graphic circuit print reading.

Lecture hours: 16
Lab/Clinic hours: 64

Prerequisite(s): EGT140 Fluid Power

Course Fee:

Prior to Fall 2006 the course number was IS107U

**EGT152 Advanced Fluid Power and Servo Systems — 2 credits**
This course will teach the principles of electrohydraulic servo systems and how these systems are applied, installed, operated, and maintained in the field. Servo systems, transducers, valve characteristics, control, and performance will be covered.

Lecture hours: 16
Lab/Clinic hours: 32

Prerequisite(s): EGT149 Fluid Power Systems II, EGT144 Fluid Power Applications

Course Fee:

Prior to Fall 2006 the course number was ST244U

**EGT243 Statics and Strength of Materials — 3 credits**
Statics deals with forces on structural members at rest. Topics include vector and scalar quantities, free-body diagrams, equations of equilibrium, coplanar and non-coplanar force systems, resultant of a system of forces, equilibrium in force systems, and the laws of friction. Strength of materials deals with the relationship between stress and deformation; riveted, welded, and bolted joints; torsion; centroids and moments of inertia; shear; moments and deflections in beams; combined stresses; and columns.

Lecture hours: 16
Lab/Clinic hours: 64
Course Fee:

**EGT400 Introduction to Engineering Design — 3 credits**
This course uses a design development process while enriching technical & engineering problem-solving skills; students create and analyze models using specialized computer software (AutoCAD Inventor).

Lecture hours: 16
Lab/Clinic hours: 64

Course Fee:

**EGT410 PLTW - Principles of Engineering — 3 credits**
This course explores technology systems and manufacturing processes using the methodology of project-based engineering problem solving. Learning activities explore a variety of engineering disciplines and address the social and political consequences of technological change.

Lecture hours: 16
Lab/Clinic hours: 64

Course Fee:

**EGT420 PLTW - Digital Electronics — 3 credits**
This course teaches applied logic through work with electronic circuitry, which students also construct and test for functionality.

Lecture hours: 16
Lab/Clinic hours: 64

Course Fee:

**EGT450 Computer Integrated Manufacturing — 3 credits**
This course enhances computer modeling skills by applying principles of robotics and manufacturing automation to the creation of models of three dimensional designs.

Lecture hours: 16
Lab/Clinic hours: 64

Course Fee:

**EGT460 Civil Engineering and Architecture — 3 credits**
This course introduces students to the interdependent fields of civil engineering and architecture; students learn project planning, site planning, and building design using specialized computer software (AutoDesk Revit).

Lecture hours: 16
Lab/Clinic hours:

Prerequisite(s): EGT400 Introduction to Engineering Design

Course Fee:

**EGT470 Engineering Design and Development — 3 credits**
This course is a research course that requires students to formulate the solution to an open-ended engineering question. With a community mentor and skills gained in their previous courses, students create written reports on their applications, defend the reports, and submit them to a panel of outside reviewers.

Lecture hours: 16
Lab/Clinic hours: 64

Course Fee:
**ELE194 Power Generators and Transformers — 2 credits**
The Power Generators and Transformers course will provide students with a working knowledge of how generators and transformers function. Training will cover the safety aspects of high voltage/power generators and transformers as the connect to the utility grids.

Lecture hours: 16  
Lab/Clinic hours: 32

Course Fee:

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**ELT103 Facilities Blueprint Reading — 3 credits**
This course is designed to develop skill in reading facilities prints us in heavy or commercial constructions.

Lecture hours: 48  
Lab/Clinic hours: 

Prerequisite(s): MFG153 Basic Blueprint Reading

Course Fee:

Prior to Fall 2006 the course number was IS152U

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**ELT104 Electronics Drafting — 3 credits**
An introduction to drafting fundamentals including: two-dimensional, orthographic, sectional, auxiliary and pictorial; electronic symbols, devices, circuitry and systems, using CAD.

Lecture hours: 16  
Lab/Clinic hours: 64

Prerequisite(s): EGT108 Principles of Engineering OR ELT192 Intro to Computer Science OR  
Pre/Co-requisite: EGT410 Principles of Engineering

Course Fee:

Prior to Fall 2006 the course number was EE135U

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**ELT133 Electric Motor Drives — 2 credits**
This course in an introduction to the fundamental principles of electronic motor drive technologies. Topics to be presented will include servo-motor theory, encoders, tachometers, electronic and mechanical brakes/clutches, and closed-loop systems. Specific drives to be studied will include DC servo, AC variable-frequency, AC servo, and stepper systems.

Lecture hours: 16  
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was ST240U

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**ELT139 Electrical Systems — 3 credits**
Students will gain knowledge and hands-on experience in DC and AC circuits and principles, electrical measurement instruments, electrical safety, conductor sizes and types, wiring applications, wiring techniques, and troubleshooting.

Lecture hours: 16  
Lab/Clinic hours: 64

Prerequisite(s): MAT772 Applied Math

Course Fee: $35.00
Prior to Fall 2006 the course number was IS105U

**ELT149 Advanced Electrical Systems — 2 credits**
This class stresses electrical distribution systems, electrical transformers, AC and DC motor theory, operation and repair, motor testing and sizing procedures, manual and magnetic starters, and motor overload protection. Specific topics will include types of electrical distribution systems, transformer theory and operation, electrical safety related to motor systems, lockout/ tagout techniques, use of motor testing devices, and construction, sizing, and installation of motor overload devices. Extensive laboratory exercises will enhance classroom studies.

Lecture hours: 16  
Lab/Clinic hours: 32

Prerequisite(s): ELT139 Electrical Systems and MAT778 Applied Geometry/Trigonometry

Course Fee:

Prior to Fall 2006 the course number was IS108U

**ELT156 Industrial Electronics — 5 credits**
This course covers the theory and application of devices and circuits used in industrial and commercial electronics.

Lecture hours: 48  
Lab/Clinic hours: 96

Course Fee:

Prior to Fall 2006 the course number was EE236U

**ELT192 Introduction to EET Computer Science — 3 credits**
This course will introduce the student to the basic use of the personal computer. The course will include a study of DOS, Word Processing, Spreadsheet, and BASIC programming language.

Lecture hours: 32  
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was EE106U

**ELT194 C++ Programming — 3 credits**
This course introduces students to the C++ programming languages. The objective of this course is to provide students with the understanding of the C++ programming language for problem solving.

Lecture hours: 32  
Lab/Clinic hours: 32

Prerequisite(s): ELT192 Intro to EET Computer Science

Course Fee:

Prior to Fall 2006 the course number was EE237U

**ELT215 Motors and Controls — 2 credits**
This class stresses motor control systems, devices, circuit design and construction, and troubleshooting techniques. Specific topics will include electrical safety, lockout/tagout procedures, relays, timers, pilot devices, and solid state control technologies. Extensive laboratory exercises using industrial-grade components will enhance classroom studies.

Lecture hours: 16
Lab/Clinic hours: 32
Prerequisite(s): ELT149 Advanced Electrical Systems
Course Fee:
Prior to Fall 2006 the course number was IS160U

**ELT234 PLC Programming — 2 credits**
This course is an introduction to the fundamental principles of programmable controller operation using Allen-Bradley PLC systems. Topics to be presented will include basic system configurations and hardware, relay-equivalent instructions, timers and counters, data manipulation commands, and searching/program documentation.

Lecture hours: 16
Lab/Clinic hours: 32
Course Fee: $55.00
Prior to Fall 2006 the course number was IS159U

**ELT240 PLCs II — 2 credits**
As modern manufacturing becomes more computer-control oriented, the industrial programmable controller plays an increasingly important role. In this course the learner will study advanced programming commands, sequencers, file moves, arithmetic functions, and data communications; as well as interfacing, troubleshooting, and applications.

Lecture hours: 16
Lab/Clinic hours: 32
Prerequisite(s): ELT234 PLC Programming
Course Fee: $70.00
Prior to Fall 2006 the course number was ST236U

**ELT290 DC Electricity — 4 credits**
This course presents basic concepts of electricity and electronics and the application of these concepts to direct current circuits. This course assumes no previous knowledge of electricity or electronics.

Lecture hours: 48
Lab/Clinic hours: 48
Other Requirements: An understanding of algebra is required.
Course Fee: $110.00

**ELT291 AC Electricity — 4 credits**
This course presents basic concepts of electricity and electronics and the application of these concepts to alternating current circuits. This course is a continuation of the DC Electricity course.

Lecture hours: 48
Lab/Clinic hours: 48
Prerequisite(s): ELT290 DC Electricity
Other Requirements: An understanding of algebra is required.
Course Fee:

**ELT305 Electricity — 8 credits**
This course presents basic concepts of electricity and electronics and the application of these concepts to
direct current and alternating current circuits. This course assumes no previous knowledge of electricity or electronics.

Lecture hours: 96
Lab/Clinic hours: 96

Prerequisite(s): MAT504 Electronics Math I

Other Requirements: An understanding of algebra is required.

Course Fee:

Prior to Fall 2006 the course number was EE101U

**ELT309 Digital Circuits — 3 credits**
This course provides students with knowledge and understanding of digital logic circuit design and operation using integrated circuits. Studies include combinatorial logic circuits, flip-flops, arithmetic circuits, counters and registers, memory devices and logic families.

Lecture hours: 32
Lab/Clinic hours: 48

Prerequisite(s): ELT590 Semiconductors

Course Fee:

Prior to Fall 2006 the course number was ST203U

**ELT311 Digital Circuits and Systems — 4 credits**
This course provides students with knowledge and understanding of digital logic circuit design and operation using integrated circuits. Studies include combinatorial logic circuits, flip-flops, arithmetic circuits, counters and registers, and logic families, with introduction of hardware and software of microcontrollers.

Lecture hours: 32
Lab/Clinic hours: 96

Prerequisite(s): MAT514 Electronics Math II
Co-requisite(s): ELT526 Electronic Devices

Course Fee: $62.00

Prior to Fall 2006 the course number was EE153U

**ELT320 Electronic Devices — 5 credits**
This course is an introduction to electronic devices and their uses. This course provides the foundation for advanced courses in electronics circuit and systems by teaching the operating characteristics of electronic devices and circuit design using those devices. Lab/Clinic 48 hours.

Lecture hours: 48
Lab/Clinic hours: 32

Prerequisite(s): ELT291 AC Electricity

Course Fee:

**ELT321 Operational Amplifiers — 3 credits**
This course is an introduction to operational amplifiers and their uses. This course provides the foundation for advanced courses in electronics circuit and systems by teaching the operating characteristics of operational amplifiers and circuit design using those devices.

Lecture hours: 32
Lab/Clinic hours: 32
Prerequisite(s): ELT291 AC Electricity

Course Fee:

**ELT403 Visual Basic — 3 credits**
This course introduces students to Visual Basic programming languages. The objective of this course is to provide students with the understanding of high level programming languages and programming techniques used in problem solving.

Lecture hours: 32
Lab/Clinic hours: 48

Course Fee:

**ELT409 Data Acquisition Systems — 4 credits**
This course includes signal conditioning, transducer characteristics, microcontroller input/output and interfacing using C programming language and applications.

Lecture hours: 32
Lab/Clinic hours: 96

Course Fee:

**ELT415 Communication Circuits I — 5 credits**
This course is an introduction to communication circuits with an in depth study of A.M. and F.M. transceiver theory.

Lecture hours: 48
Lab/Clinic hours: 96

Prerequisite(s): ELT320 Electronic Devices, ELT321 Operational Amplifiers

Course Fee:

Prior to Fall 2006 the course number was EE201U

**ELT416 Communication Circuits II — 5 credits**
This course is continuation of Communication Circuits I. This course includes the study of frequency synthesis, transmission line theory, digital communication techniques, antennas, and microwave devices.

Lecture hours: 48
Lab/Clinic hours: 96

Prerequisite(s): ELT415 Communication Circuits I

Course Fee:

Prior to Fall 2006 the course number was EE231U

**ELT417 Computer Systems — 3 credits**
This course provides the students with the understanding of personal computer hardware systems and administration of various computer operating systems.

Lecture hours: 16
Lab/Clinic hours: 64

Course Fee:

**ELT439 Data Communications — 1 credits**
This course introduces students to Data Communication theory and applications. The course includes a study
of Serial I/O Techniques, Modems, and Local Area Networks.

Lecture hours: 0  
Lab/Clinic hours: 32  

Prerequisite(s): ELT700 Microprocessors  

Course Fee:  

Prior to Fall 2006 the course number was EE232U

**ELT512 Electronic Fabrication — 2 credits**  
This course provides students with an understanding of the hand tools and materials used by the technicians in the electronics field and instruction in their usage.  

Lecture hours: 16  
Lab/Clinic hours: 32  

Course Fee:  

Prior to Fall 2006 the course number was EE105U

**ELT526 Electronic Devices — 8 credits**  
This course is an introduction to electronic devices and their uses. The course provides the foundation for advanced courses in electronics circuit and systems by teaching the operating characteristics of electronic devices and circuit design using those devices.  

Lecture hours: 96  
Lab/Clinic hours: 96  

Prerequisite(s): ELT305 Electricity and MAT504 Electronics Math I  

Course Fee:  

Prior to Fall 2006 the course number was EE131U

**ELT590 Semiconductors — 5 credits**  
This course provides an introduction to electronic devices and their uses. The course provides the foundation for advanced courses in electronics systems by teaching the operating characteristics of electronic devices and circuit design using those devices.  

Lecture hours: 48  
Lab/Clinic hours: 64  

Prerequisite(s): ELT149 Advanced Electrical Systems, MAT778 Applied Geometry/Trigonometry  

Course Fee:  

Prior to Fall 2006 the course number was ST130U

**ELT600 Applied Computer Programming — 3 credits**  
This course introduces students to Visual C and LabView programming languages. The objective of this course is to provide students with the understanding of high level programming languages and programming techniques used in problem solving.  

Lecture hours: 32  
Lab/Clinic hours: 48  

Prerequisite(s): EGT108 Principles of Engineering OR EGT410 Principles of Engineering  

Course Fee: $38.00
ELT605 Operating Systems — 3 credits
This course provides students with an understanding of the operation and administration of various computer operating systems such as DOS, Windows, and UNIX.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): ELT192 Intro to EET Computer Science

Course Fee:

ELT610 Microprocessors — 2 credits
This course is an introduction to microprocessor and microcomputer theory and applications. The objective of this course is to provide students with the basic microcomputer theory necessary to understand the operation and interfacing characteristics of the Intel family of processors. This includes typical microcomputer architecture, assembly and machine language programming, input/output and interfacing concepts, hardware/software interaction and applications.

Lecture hours: 16
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was ST235U

ELT621 Microprocessors II — 4 credits
This course provides students with an understanding of 16 bit microprocessors and microcomputer systems and circuitry. Programming languages and techniques, including software troubleshooting, will be expanded and analyzed. Students will become familiar with Intel 80/88/86, 286, 386, 486 microprocessors and Motorola 68000 series microprocessors.

Lecture hours: 32
Lab/Clinic hours: 64

Prerequisite(s): ELT700 Microprocessors

Course Fee:

Prior to Fall 2006 the course number was EE233U

ELT651 Computer Systems — 5 credits
This course provides students with an understanding of the computer as a complete system, covering hardware and software.

Lecture hours: 48
Lab/Clinic hours: 96

Prerequisite(s): ELT192 Intro to EET Computer Science and ELT311 Digital Circuits and Systems

Course Fee:

Prior to Fall 2006 the course number was EE202U

ELT700 Microprocessors — 3 credits
This course provides students with an understanding of microprocessors and microcomputer systems and circuitry. Programming languages and techniques, including software troubleshooting, will be expanded and analyzed. Students will become familiar with Intel 86/88, 286, 386, 486, and Pentium microprocessors.

Lecture hours: 32
Lab/Clinic hours: 48
Prerequisite(s): ELT192 Intro to EET Computer Science and ELT311 Digital Circuits and Systems

Course Fee:

**ELT701 Embedded Processors — 3 credits**
This course is an introduction to microcontroller theory and applications. The objective of this course is to provide students with the basic microcontroller theory necessary to understand the operation and interfacing characteristics. This includes typical microcontroller architecture, assembly and C programming, Input/output and interfacing concepts, hardware/software interaction and applications.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): ELT409 Data Acquisition Systems

Course Fee:

**ELT702 Microcomputer Hardware — 2 credits**
This course provides the students with an understanding of personal computer hardware systems and components.

Lecture hours: 16
Lab/Clinic hours: 32

Prerequisite(s): ELT192 Intro to EET Computer Science

Course Fee:

**ELT703 Introduction to Networking — 2 credits**
This course introduces the student to the fundamental building blocks that form a modern computer network such as protocols, topologies, hardware, and network operating systems. The course then provides in-depth coverage of the most important concepts in contemporary networking such as client/server architecture, TCP/IP, Ethernet, wireless transmission and security.

Lecture hours: 16
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of 'D-' in ELT409 Data Acquisition Systems

Course Fee:

**ELT736 Instrumentation and Control — 2 credits**
With the increase in computer-controlled systems in modern business and industry the study of instrumentation and transducers is vital to a maintenance technicians education. This course will concentrate on the types of instrumentation currently available, interfacing and cabling techniques, signal conditioning, noise control, and applications and troubleshooting of complete systems.

Lecture hours: 16
Lab/Clinic hours: 32

Prerequisite(s): IND100 Basic Mechanical Systems and EGT144 Fluid Power Applications and ELT215 Motors and Controls

Course Fee:

Prior to Fall 2006 the course number was ST230U

**ELT802 Electronics Design Project I — 1 credits**
This course is the first of a series of two design courses. This course will introduce the student to design concepts and procedures as related to the design of electronics equipment. This course will require the student to identify an electronics design project as an individual or as a member of a team that will be completed
during this course and the Electronics Design Project II course. All design projects will be subject to instructor approval.

Lecture hours: 0  
Lab/Clinic hours: 32

Course Fee:

**ELT803 Electronics Design Project II — 1 credits**  
This course is a continuation of ELT-802 Electronic Design Project I. The student will complete the design project that was identified and started in Electronic Design Project I. This course will require the student to design, prototype, troubleshoot, and debug an electronics related project based on technology presented throughout the EET program.

Lecture hours: 0  
Lab/Clinic hours: 32

Prerequisite(s): ELT802 Electronics Design Project I

Course Fee:

**EMS114 Emergency Medical Responder — 2 credits**  
This course provides the student with the necessary skills and knowledge to identify and treat life-threatening emergencies, wounds and fractures, medical and environmental emergencies and patient access and handling. This course utilizes a combination of classroom lecture and skills practice.

Lecture hours: 16  
Lab/Clinic hours: 32

Course Fee:

**EMS201 Emergency Medical Technician — 7 credits**  
This course is for individuals who anticipate working with an ambulance service, hospital emergency department, fire department or other occupational field where emergencies are common. Course includes topics related to assessment and treatment of illness and injury. This course also includes a clinical and field component.

Lecture hours: 80  
Lab/Clinic hours: 32  
Co-op Hours: 64

Prerequisite(s): Criminal background check and drug screening required. Must be an Emergency Medical Services program major to register for this course.

Course Fee: $494.00

**EMS541 Clinical I — 3 credits**  
This course will provide clinical atmosphere for performance of 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.

Lecture hours: 0  
Lab/Clinic hours:  
Co-op Hours: 192

Co-requisite(s): EMS619 Airway and Patient Assessment and EMS641 Introduction to Paramedicine
EMS546 Clinical II — 3 credits
This course will provide clinical atmosphere for performance of 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.

Lecture hours: 0
Lab/Clinic hours:
Co-op Hours: 192

Prerequisite(s): A minimum grade of C in EMS541 Clinical I.

Co-requisite(s): EMS677 Special Populations for the Paramedic, EMS674 Cardiology for the Paramedic, and EMS650 Medical and Psychological Emergencies.

Course Fee: $125.00

EMS619 Airway and Patient Assessment — 4 credits
The course includes Module 2 (Airway Management and Ventilation) and Module 3 (Patient Assessment) of the DOT National Standard Curriculum for EMT Paramedics. Content will include advanced airway management physical assessment, field assessment, clinical decision making, documentation and the assessment and management of respiratory emergencies. The lab component of this course includes skills in airway management and ventilation, history taking, techniques of physical examination, patient assessment, clinical decision making, communication and AHA ACLS. All will be practiced and demonstrated.

Lecture hours: 48
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of C in EMS641 Introduction to Paramedicine.

Course Fee: $95.00

EMS641 Introduction to Paramedicine — 3 credits
Provides an overview of paramedic roles and responsibilities and the emergency medical service system. Includes discussion of medicolegal and ethical issues in EMS, agents of trauma and disease, and career opportunities for paramedics. Provides discussion and demonstration of proper documentation in EMS, emergency vehicle operations, and non-patient care aspects of EMS.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): Must be in program major. Must hold Iowa EMT Certification prior to course enrollment. A minimum grade of C in EMS201 Emergency Medical Technician

Course Fee: $42.00

EMS650 Medical and Psychological Emergencies — 4 credits
Lecture and case-based teaching in the pathophysiology, recognition and advanced life support assessment and management of emergencies involving the nervous, endocrine, renal, and gastrointestinal systems. Assessment and intervention in psychological emergencies.

Lecture hours: 48
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of C in EMS641 Introduction to Paramedicine. A minimum grade of C in EMS619 Airway and Patient Assessment.

Course Fee: $113.00
**EMS655 Transition to Paramedic Practice — 4 credits**
This course will provide a platform for the student to apply cognitive, psychomotor, and affective skills to actual practice during a field internship. This course will also include comprehensive psychomotor exercises in a lab setting to prepare the paramedic student for national certification.

Lecture hours: 0
Lab/Clinic hours: 32

Prerequisite(s): Instructor approval. A minimum grade of C in EMS541 Clinical I. A minimum grade of C in EMS546 Clinical II. A minimum grade of C in EMS641 Introduction to Paramedicine. A minimum grade of C in EMS671 Paramedic Pharmacology/Pathophysiology. A minimum grade of C in EMS619 Airway and Patient Assessment.

Course Fee: $395.00

**EMS671 Paramedic Pharmacology/Pathophysiology — 3 credits**
Paramedic Pharmacology/Pathophysiology is a preparatory course for the Paramedic Education Program. The course will concentrate on the pathophysiology of illness and injury on the human body and also relate the principles of pharmacology to the pathophysiology.

Lecture hours: 32
Lab/Clinic hours: 32

Co-requisite(s): EMS619 Airway and Patient Assessment and EMS641 Introduction to Paramedicine

Course Fee: $62.00

**EMS674 Cardiology for the Paramedic — 4 credits**
Cardiology for the Paramedic will focus on assessing the pre-hospital cardiac patient, interpreting electrocardiograms, and formulating treatment regimens for these patients.

Lecture hours: 48
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of C in EMS641 Introduction to Paramedicine. A minimum grade of C in EMS619 Airway and Patient Assessment. A minimum grade of C in EMS671 Paramedic Pharmacology/Pathophysiology.

Co-requisite(s): EMS650 Medical and Psychological Emergencies

Course Fee:

**EMS677 Special Populations for the Paramedic — 4 credits**
Special Patient Populations for the Paramedic explores illness and injury in the obstetric/gynecologic, neonatal, pediatric, geriatric, and chronically ill patient populations.

Lecture hours: 48
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of C in EMS 619 Airway and Patient Assessment. A minimum grade of C in EMS 641 Introduction to Paramedicine.

Course Fee:

**EMS678 Traumatic Emergencies for the Paramedic — 3 credits**
Traumatic Emergencies for the Paramedic explores the science of traumatic injuries, their detection and treatment. Major topics include: soft tissue, shock, hard tissue, nervous system, and internal injuries.

Lecture hours: 32
Lab/Clinic hours: 32

Co-requisite(s): EMS671 Paramedic Pharmacology/Pathophysiology

Course Fee:

**ENG060 College Preparatory Writing I — 3 credits**
This course is the first in the college writing sequence. It provides students with opportunities to read and comprehend increasingly difficult texts in a variety of genres; to think more deeply and critically about the issues and ideas presented in these texts; and to respond to those texts in writing with increasing fluency, confidence, and clarity. Students should connect personally with assigned reading material and communicate their thoughts clearly in writing using Standard English. This course emphasizes responses grounded in the writer's personal interaction with the assigned text. It prepares students for the next level in their writing sequence.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): Appropriate placement scores or equivalent

Course Fee:

Prior to Fall 2006 the course number was SC015D

**ENG061 College Preparatory Writing II — 3 credits**
This course encourages students to improve their critical thinking skills, reading comprehension, and writing proficiency for inquiry, learning, thinking, and communication. Students will read, discuss, and respond to a variety of texts of different genres so as to analyze texts and write for different purposes. Students will work individually and collaboratively to produce, revise, and edit written work. Central to the objective of this course is developing a personal writing process: generating ideas, producing multiple drafts, revising, and editing. This course prepares students to advance into their appropriate program writing sequence.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): ENG060 College Preparatory Writing I or appropriate COMPASS scores or equivalent

Course Fee:

Prior to Fall 2006 the course number was SC017D

**ENG105 Composition I — 3 credits**
This course emphasizes fluency, thesis-driven organization, the use of supporting details, and research techniques. Writing is approached as a recursive process that includes prewriting strategies, drafting, revising, and editing. The course helps students shape writing to serve readers' needs and define a sense of purpose in their writing. It also gives students strategies for reading college-level material.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was CM113T

**ENG106 Composition II — 3 credits**
This course aims to review and extend writing principles learned in ENG105 Composition I to analytical, argumentative, and research-based writing. This course emphasizes critical reading, evaluation, and precise and responsible source citation.

Lecture hours: 48
Prerequisite(s): ENG105 Composition I

Course Fee:

Prior to Fall 2006 the course number was CM118T

**ENG221 Creative Writing — 3 credits**
This is a beginning course for students interested in writing poetry and short stories. The course involves discussion of selected texts by accomplished writers (creative and critical work), assignments designed to develop specific skills and techniques, class discussion of student work, and individual conferences. The semester will be roughly divided between the two genres. As a final project, students are expected to write one of the following: 1) A collection of at least six polished poems; 2) A major revision of a substantial short story.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was CM120T

**ENV115 Environmental Science — 3 credits**
This natural science course addresses the manner in which we approach our environment today and how it will affect the world we live in tomorrow. This course examines the challenges of developing sustainable energy sources, maintaining the quality of our air, water, and soil, and preserving the remaining biodiversity and habitat. As these challenges are examined, possible solutions will be evaluated.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was NS123T

**ENV116 Environmental Science Lab — 1 credits**
This laboratory course provides a hands-on approach to understanding challenges to our environmental health. The course examines population growth, a framework for understanding the extent of habitat loss and degradation and its impact on biodiversity; water quality and treatment; soil quality and management practices; examination of energy consumption and alternatives; and an evaluation of ecosystem interactions.

Lecture hours: 0
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was NS124T

**ENV155 Residential Energy Auditing — 4 credits**
This course covers building energy auditing and associated heating and air-conditioning equipment. The concepts of heat flow, energy audit software, building science, building envelope, construction practices, material costs, moisture concerns, proper insulation techniques, energy pricing, energy modeling, and commercial and residential HVAC systems including equipment selection, layout, piping techniques, troubleshooting, codes, preventive maintenance, multiple systems, and system accessories are covered.

Lecture hours: 32
Lab/Clinic hours: 64

Course Fee:

**ENV170 Photo-Voltaics and Hybrid Electrical Systems — 2 credits**
The Photo-Voltaic and Hybrid Electrical Systems course will provide students with an opportunity to size, construct, maintain, and analyze residential or commercial sized hybrid systems. Students will gain firsthand experience working with electrical energy systems consisting of wind generators, hydrogen fuel cells, photovoltaic arrays, battery storage systems, back-up generators, inverters, and system controllers.

Lecture hours: 16
Lab/Clinic hours: 32

Course Fee:

**ENV185 Photovoltaic Solar Systems — 2 credits**
The Photovoltaic Solar Systems Installation course provides critical knowledge of solar energy and system applied to PV installations.

Lecture hours: 16
Lab/Clinic hours: 32

Course Fee:

**ESL005 ESL Reading for Academic Purpose I — 4 credits**
This is the first of two courses designed for non-native speakers of English to acquire basic reading skills. The course introduces students to effective reading strategies, approaches to reading in a variety of genres, strategies to expand vocabulary, and basic library research. Students are also encouraged to improve their reading fluency through extensive reading.

Lecture hours: 64
Lab/Clinic hours:

Prerequisite(s): Appropriate placement scores or equivalent

Course Fee:

Prior to Fall 2006 the course number was SC006D

**ESL011 ESL Writing for Academic Purpose I — 4 credits**
This is the first of two courses designed for non-native speakers of English in the acquisition of basic grammatical structures of English and writing skills. The primary focus of the course is to develop students’ competence and confidence in writing for academic purposes. Students will review basic grammatical rules and structures, understand the elements of paragraph through process writing, practice writing for different purposes, expand vocabulary, and develop fluency in writing.

Lecture hours: 64
Lab/Clinic hours:

Prerequisite(s): Appropriate placement scores or equivalent

Course Fee:

Prior to Fall 2006 the course number was SC007D

**ESL014 ESL Listening and Speaking for Academic Purpose I — 4 credits**
This is the first of two courses designed for non-native speakers of English to acquire basic aural and oral skills. The primary focus of the course is to prepare students for academic content. Students will be involved in a variety of communicative activities to increase their confidence in understanding and communicating with others, to improve fluency as well as accuracy, to expand vocabulary, to practice note-taking skills, and to learn about American culture.

Lecture hours: 48
Lab/Clinic hours: 32
Prerequisite(s): Appropriate placement scores or equivalent

Course Fee:

Prior to Fall 2006 the course number was SC005D

**ESL020 English as a Second Language Lab — 2 credits**
The purpose of the course is to provide the non-native speaker of English with a variety of realistic laboratory
tasks that will improve and expand their English fluency. The primary focus of the course is to expand
vocabulary, improve pronunciation, and to provide the students with experiences that will enhance their
confidence in their English ability. This course can be used to prepare the ESL student for wither the ESL I or
ESL II course in the fall. It is designed to accommodate students at both the intermediate and advanced levels.

Lecture hours: 0
Lab/Clinic hours: 64

Prerequisite(s):

Other Requirements: Instructor approval

Course Fee:

Prior to Fall 2006 the course number was SC009D

**ESL083 Writing for Academic Purpose II — 4 credits**
This is a course for non-native speakers of English in the acquisition of advanced grammatical structures and
writing skills (necessary for academic English). The course is especially designed to develop advanced writing
skills that will be needed in order to successfully complete transferable academic classes. Students will review
problems in English grammar, analyze academic writing, practice writing for different purposes, and be
introduced to different documentation styles.

Lecture hours: 64
Lab/Clinic hours:

Prerequisite(s): ESL011 ESL Writing for Academic Purpose I or appropriate placement scores or equivalent

Course Fee:

Prior to Fall 2006 the course number was SC027D

**ESL084 ESL Reading for Academic Purpose II — 4 credits**
This is a course in continuing the acquisition of reading skills in English for non-native speakers. The primary
goal of the course is to prepare students to become independent readers and to manage academic texts.
Students are given opportunities to apply reading strategies effectively, to improve comprehension skills, to
expand vocabulary, and to develop library research skills needed for academic study.

Lecture hours: 64
Lab/Clinic hours:

Prerequisite(s): ESL005 ESL Reading for Academic Purpose I or appropriate placement scores or equivalent

Course Fee:

Prior to Fall 2006 the course number was SC026D

**ESL089 Listening and Speaking for Academic Purpose II — 4 credits**
This is a course in continuing the acquisition of aural and oral skills in English for non-native speakers. The
course is designed to help students develop listening and speaking skills that will be needed to be successful
in fully transferable college courses. Skills taught include listening strategies, note taking, oral presentations,
and vocabulary development. Students will also develop a deeper understanding of American culture through
various activities.
Prerequisite(s): ESL014 ESL Listening and Speaking for Academic Purpose I or appropriate placement scores or equivalent

Course Fee:

Prior to Fall 2006 the course number was SC025D

**FIN121 Personal Finance — 3 credits**
This course enables students to achieve high standards and competencies in economic principles in contexts of high relevancy and applicability to their individual, family, professional, and community lives. A project-based approach that utilizes higher order thinking, communication, leadership, and management processes will integrate course topics. Upon completion, students should be able to better understand scarcity, supply and demand, market structures, the role of government, money and the role of financial institutions, economic stabilization and cycles, investing and financial markets, and consumer credit.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

**FIR124 Building Construction — 3 credits**
This course provides the components of building construction that relate to fire and life safety. The focus of this course is on firefighter safety. The elements of construction and design of structures are shown to be key factors when inspecting buildings, pre-planning fire operations, and operating at emergencies.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

**FIR127 Fire Behavior and Combustion — 3 credits**
This course explores the theories and fundamentals of how and why fires start, spread, and how they are controlled.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

**FIR130 Fire Prevention — 3 credits**
This course provides fundamental information regarding the history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use of fire codes, identification and correction of fire hazards, and the relationships of fire prevention with built-in fire protection systems, fire investigation, and fire and life-safety education.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was FS141U

**FIR139 Fire Fighter I — 4 credits**
After completing the course the student will have met the sections required for a Firefighter I in the NFPA® 1001, Standard for Fire Fighter Professional Qualifications, and the requirements for National Fire Protection Association's (NFPA) 472, Standard for Professional Competence of Responders to Hazardous Materials Incidents for the for the Awareness and Operational Levels.
Lecture hours: 48
Lab/Clinic hours: 32

Course Fee:

**FIR145 Fire Strategies and Tactics — 3 credits**
This course provides an in-depth analysis of the principles of fire control through utilization of personnel, equipment, and extinguishing agents on the fire ground.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

**FIR146 Firefighting Tactics and Strategy — 3 credits**
Studies methods of coordinating personnel, equipment deploying apparatus on the fire ground. Practical methods of controlling and extinguishing structural and other types of fires are discussed. Includes simulation exercises.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was FS131U

**FIR149 Fire Protection Hydraulics and Water Supply — 3 credits**
This course provides a foundation of theoretical knowledge in order to understand the principles of the use of water in fire protection and to apply hydraulic principles to analyze and to solve water supply problems.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

**FIR150 Fire Detection and Suppression Systems — 3 credits**
Covers the identification of system elements, the proper type for the occupancy per code, fire department operations at premises, and inspection practice to ensure the system is operating and installed as required.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was FS151U

**FIR180 Hazardous Materials Chemistry — 3 credits**
Covers properties of chemistry in fire service. Types of chemicals, processes, and legal requirements are discussed as they pertain in use, storage, and transportation of chemicals.

Lecture hours: 48
Lab/Clinic hours:

Co-requisite(s): FIR139 Fire Fighter I

Course Fee:

Prior to Fall 2006 the course number was FS111U

**FIR183 Hazardous Materials Management — 3 credits**
Discusses the properties of chemically active substances related to hazardous materials. Identifies and demonstrates techniques, methods, strategies to mitigate haz-mat incidents. Covers state and federal laws as
they relate to management of hazardous materials.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was FS121U

**FIR200 Occupational Safety/Health in Emergency Services — 3 credits**
This course introduces the basic concepts of occupational health and safety as it relates to emergency service organizations. Topics include risk evaluation and control procedures for fire stations, training sites, emergency vehicles, and emergency situations involving fire, EMS, hazardous materials, and technical rescue. Upon completion of this course, students should be able to establish and manage a safety program in an emergency service organization.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

**FIR213 Principles of Emergency Services — 3 credits**
This course provides an overview to fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection/service; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

**FIR214 Legal Aspects of the Emergency Services — 3 credits**
This course introduces the federal, state, and local laws that regulate emergency services, national standards influencing emergency services, standard of care, tort, liability, and a review of relevant court cases.

Lecture hours: 48
Lab/Clinic hours: 0

Course Fee:

**FIR235 Fire Investigation I — 3 credits**
This course is intended to provide the student with the fundamentals and technical knowledge needed for proper fire scene interpretations, including recognizing and conducting origin and cause, preservation of evidence and documentation, scene security, motives of the fire-setter, and types of fire causes.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

**FIR236 Fire Investigation II — 3 credits**
This course is intended to provide the student with advance technical knowledge on rule of law, fire scene analysis, fire behavior, evidence collection and preservation, scene documentation, case preparation and testifying.

Lecture hours: 48
Lab/Clinic hours:
Prerequisite(s): A minimum grade of C in FIR235 Fire Investigation I.

Course Fee:

**FIR280 Instructional Techniques for Fire Service Training — 3 credits**
Covers concepts and techniques for conducting periodic company level or small unit training. The emphasis of this course is teaching principles applicable to in-service fire and rescue service skills training. It will meet N.F.P.A. Standard 1040, 1992 version. Course objectives for Fire Instructor I and II as specified in this standard. Successful completion of this course allows the student to meet Iowa Fire Instructor I and Iowa Fire Instructor II course requirements as specified by the certifying agency, Fire Service Institute, Iowa State University.

Lecture hours: 48
Lab/Clinic hours:

Prior to Fall 2006 the course number was FS161U

**FIR300 Principles of Fire and EMS Administration — 3 credits**
This course introduces the student to the organization and management of a fire and emergency services department and the relationship of government agencies to the fire service. Emphasis is placed on fire and emergency service, ethics, and leadership from the perspective of the company officer.

Lecture hours: 48
Lab/Clinic hours: 0

Prerequisite(s): A minimum grade of C in FIR213 Principles of Emergency Services.

Course Fee:

**FIR400 Emergency Safety and Survival — 3 credits**
This course introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavior change throughout the emergency services.

Lecture hours: 48
Lab/Clinic hours:

**FLF145 French I — 5 credits**
This course is an introduction to the basic vocabulary and key structures of the French language. The course will help students to develop the four basic skills of listening, speaking, reading, and writing and will provide the beginning steps to acquisition the French language. The course also focuses on making the student more culturally aware. This course is not recommended for students who have completed one or more years of high school French or the equivalent.

Lecture hours: 80
Lab/Clinic hours:

Prior to Fall 2006 the course number was FL140T

**FLF245 French II — 5 credits**
This course continues to introduce basic vocabulary and key structures of the French language. The course will help students to continue to develop the four basic skills of listening, speaking, reading, and writing and will provide additional steps toward the acquisition of the French language. The course continues to focus also on making the student more culturally aware. This course is not recommended for students who have completed two or more years of high school French with grades of B or A.
Lecture hours: 80
Lab/Clinic hours:

Prerequisite(s): Successful completion of FLF145 French I, equivalent, or appropriate placement score.

Course Fee:

Prior to Fall 2006 the course number was FL142T

**FLS128 Conversational Spanish — 3 credits**
In this course students will learn elementary speaking skills used in everyday conversations. The student will progress toward the ability to converse in more varied and complex settings. This course is not for students who plan to major in foreign language.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was FL138T

**FLS151 Elementary Spanish I — 5 credits**
This course is student-centered introductory instruction in the basic components of the Spanish language. The course will help students develop the skills necessary for the acquisition and perfection of the primary concepts of reading, writing, listening, and speaking in the Spanish language. This course is not recommended for students who have completed one year or more of high school Spanish or the equivalent.

Lecture hours: 80
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was FL130T

**FLS152 Elementary Spanish II — 5 credits**
This course provides continued instruction in the basic and necessary linguistic elements of Spanish to enable the learner to communicate verbally and in writing within the limits of the language presented.

Lecture hours: 80
Lab/Clinic hours:

Prerequisite(s): FLS151 Elementary Spanish I, equivalent, or instructor approval

Course Fee:

Prior to Fall 2006 the course number was FL132T

**GEO115 Human Geography — 3 credits**
This course introduces basic fields of study, concepts, and research strategies of human geography. As a social science course it examines the interaction of humans and geographical space while exploring topics such as cultural diversity, urban centers, political boundaries, migration, land/water modification, erosion, and pollution.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was SS130T

**GEO121 World Regional Geography — 3 credits**
This introductory course builds an understanding of the physical and social aspects of geography by examining the major regions of the world and their connections. This will be accomplished by a geographic regional “tour” of the world examining the basic relationship between the physical environment and the cultural aspects within these regions.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

**GEO131 Physical Geography — 3 credits**

This course is an introduction to one of the major sub-fields of geography. Physical geography is the study of how and why physical phenomena vary spatially at and near the earth’s surface. The course will emphasize describing the spatial distribution of the earth’s natural features, patterns of solar energy receipt, atmospheric pressure, winds, and precipitation around the earth. Introductory laboratory exercises complement the lecture.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was GY110T

**GEO132 Physical Geography Lab — 1 credits**

This course is an introductory laboratory course to complement GEO-131 Physical Geography. The course explores the concepts, resources, and specialized methods necessary to understand the major elements of Physical Geography.

Lecture hours: 0
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was GY111T

**GRA105 Drawing and Composition — 4 credits**

This course introduces the student to a variety of art-making materials and media, provides a broad range of drawing experiences designed to expand the student's artistic perception, and enhances the student's ability to develop appropriate art-based solutions to common graphic design problems.

Lecture hours: 32
Lab/Clinic hours: 64

Course Fee: $50.00

Prior to Fall 2006 the course number was GC100U

**GRA106 Principles of Illustration — 4 credits**

This course is designed to develop the understanding of illustration within the context of graphic communications. Students will have the opportunity to produce original illustrations using a variety of media, tools, and techniques.

Lecture hours: 32
Lab/Clinic hours: 64

Prerequisite(s): GRA105 Drawing and Composition

Course Fee: $230.00

Prior to Fall 2006 the course number was GC133U
GRA124 Electronic Illustration — 4 credits
This course provides students with the knowledge, skills, and experiences needed to create vector artwork. Students will utilize the leading vector drawing software to develop essential vector art rendering techniques.

Lecture hours: 48
Lab/Clinic hours: 32

Prerequisite(s): GRA174 Typography and GRA133 Desktop Publishing

Course Fee:

Prior to Fall 2006 the course number was GC202U

GRA133 Desktop Publishing — 4 credits
This course introduces the student to computer generated layout and design production skills using electronic publishing software. Emphasis is a hands-on introduction to the leading page-layout application program utilized in the graphic communications industry.

Lecture hours: 32
Lab/Clinic hours: 64

Course Fee:

Prior to Fall 2006 the course number was GC130U

GRA142 Graphic Imaging — 4 credits
This course is designed to provide students with an understanding of computer generated photographic manipulation techniques used in graphic communications. Emphasis is a hands-on introduction to the leading electronic image manipulation software.

Lecture hours: 32
Lab/Clinic hours: 64

Prerequisite(s): GRA124 Electronic Illustration

Course Fee:

Prior to Fall 2006 the course number was GC203U

GRA150 Introduction to Web Design — 3 credits
This course will help students learn the basic concepts of web page design. Students will learn how to use the Hypertext Markup Language (HTML), Dynamic HTML, Cascading Style Sheets (CSS), and other tools to create multimedia web pages.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was IF135U

GRA162 Web Page Graphics — 3 credits
This course will give students a more in depth look into web-based graphics. This course will give students experience with different file formats on the web. Also, this course will give students a broader experience of high-end graphics programs.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): GRA150 Introduction to Web Design
Course Fee:

Prior to Fall 2006 the course number was IF206U

**GRA174 Typography — 5 credits**
This course emphasizes the fundamentals of typography in visual communications. The course provides experience in the type selection process for design applications.

Lecture hours: 64
Lab/Clinic hours: 32

Course Fee: $65.00

Prior to Fall 2006 the course number was GC112U

**GRA187 Advanced Design — 4 credits**
This course expands the dimension of the process of design to include specific information and experiences pertaining to advertising design and other advanced design formats.

Lecture hours: 32
Lab/Clinic hours: 64

Prerequisite(s): GRA200 Applications of Color, GRA142 Graphic Imaging, and GRA186 Design and Layout II

Course Fee:

Prior to Fall 2006 the course number was GC212U

**GRA196 Design and Layout I — 4 credits**
This course emphasizes the fundamentals of design and layout in visual communications. The course provides experience in the type selection process for design application.

Lecture hours: 32
Lab/Clinic hours: 64

Prerequisite(s): GRA133 Desktop Publishing

Course Fee: $42.00

**GRA197 Design and Layout II — 4 credits**
This course applies the principles and methods of design and layout to creating solutions for design problems. The process involved with communicating a client's product, service or image to a specific or general audience is explored in project application.

Lecture hours: 48
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of D in GRA133 Desktop Publishing and GRA196 Design and Layout I.

Course Fee:

**GRA200 Applications of Color — 3 credits**
This course will cover the principles of color perception, design, measurement, and reproduction as applied to printing, desktop publishing, and electronic imaging.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): GRA124 Electronic Illustration

Course Fee: $38.00
Prior to Fall 2006 the course number was GC200U

**GRA205 Design and Layout III — 4 credits**
This course expands the dimension of the process of design to include specific information and experiences pertaining to advertising design and other advanced design formats.

Lecture hours: 48
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of D in GRA124 Electronic illustration and GRA197 Design and Layout II.

Course Fee:

**GRA206 Advanced Design and Layout — 4 credits**
This course expands the dimension of the process of design to include specific information and experiences pertaining to advertising design and other advanced design formats.

Lecture hours: 48
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of D in GRA142 Graphic Imaging, GRA197 Design and Layout II, and GRA200 Applications of Color.

Course Fee:

**GRA221 Principles of Illustration — 3 credits**
This course develops an understanding of illustration within the context of graphic communications. Students will have the opportunity to produce original illustrations using a variety of media, tools and technique.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee: $158.00

**GRA227 Interactive Multimedia — 4 credits**
This course emphasizes designing interactive presentations using multimedia. Students will conceptualize, design, and deliver interactive content.

Lecture hours: 32
Lab/Clinic hours: 64

Course Fee:

**GRA231 Photo Direction — 2 credits**
This course presents an overview of the process involved with working with a commercial photographer. Working environment conditions, procedures and expectations for the designer will be covered. An introduction of the basics of digital photography will be provided.

Lecture hours: 32
Lab/Clinic hours:

Prerequisite(s): GRA133 Desktop Publishing and GRA174 Typography

Course Fee:

**GRA237 Web Site Construction — 4 credits**
This course provides students with the knowledge, skills, and experiences needed to create a Web site. Students will utilize the leading Web site construction software and Web design formatting languages to develop skills in constructing, implementing, and maintaining a Web site.

Lecture hours: 48
Lab/Clinic hours: 32

Prerequisite(s): GRA142 Graphic Imaging

Course Fee:

**GRA238 Web Design and Layout — 4 credits**
This course provides students with the knowledge, skills, and experiences needed to design and layout a static Website. Students will utilize the leading Website design software and web design formatting languages to develop skills in designing, building, publishing, and maintaining a static Website.

Lecture hours: 48
Lab/Clinic hours: 32

Prerequisite(s): GRA150 Introduction to Web Design and GRA162 Web Page Graphics

Course Fee:

**GRA239 CMS Web Design — 3 credits**
This course provides students with the knowledge, skills, and experiences needed to develop a dynamic Website. Students will utilize an open source Web Content Management System and leading Website design software to develop skills in implementing, administering, and designing a CMS based Website.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): GRA150 Introduction to Web Design and GRA162 Web Page Graphics

Course Fee:

**GRA285 Production Processes — 3 credits**
This course will utilize desktop pre-press production techniques used for preparing artwork for printing. One color to multi-color techniques will be covered.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): GRA124 Electronic Illustration

Course Fee: $38.00

**GRA290 Portfolio Preparation — 3 credits**
This course is intended to advance student knowledge in portfolio and resume construction and job search strategies.

Lecture hours: 32
Lab/Clinic hours: 32

Other Requirements: Must be a fourth term Graphic Communications student or have instructor permission.

Course Fee:

Prior to Fall 2006 the course number was GC236U

**HCM100 Sanitation and Safety — 2 credits**
Studies basic principles of bacteriology, food borne illness, sanitation, workplace safety, personal hygiene, food security, health regulations and inspections. Emphasizes the importance of sanitary equipment and facilities, and pest control. Students must complete the National Restaurant Association Educational Foundation certification exam to pass this course.

Lecture hours: 32
HCM242 Event Planning and Customer Service — 2 credits
This course will cover all aspects of event planning and customer service relating to the restaurant and hospitality fields. Student will engage in a hands on learning experience of dealing with real life customers and planning events such as company parties, graduations, and wedding receptions.

Lecture hours: 32
Lab/Clinic hours:

Course Fee:

HCM602 Introduction to Food and Bar Operations — 3 credits
Focuses on the management of food and beverage operations in lodging establishments. Includes stewarding, banquets, restaurant, beverage and room service. Prepares students for internships in lodging operations.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): A minimum grade of D- in HCM608 Introduction to Hospitality.

Course Fee:

HCM608 Introduction to Hospitality — 3 credits
Introduction to the food service, lodging, and tourism components of the hospitality industry. Background information, current issues, resume writing, and future challenges in various segments of the industry.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

HCR110 Residential Forced Air Heating System — 2 credits
This course presents application of energy sources and equipment as they apply to heating, ventilation, air humidification, and filtration systems.

Lecture hours: 16
Lab/Clinic hours: 32

Course Fee:

HCR113 Boiler Fundamentals — 2 credits
This class informs students of the concepts, terms, and the major components of steam systems. Topics include the basic steam heating cycle. Also covered in this course are the safety procedures necessary when working on low-pressure steam boilers and systems. Students will be able to install and maintain specific steam straps and recognize the common piping configurations used with steam heating systems.

Lecture hours: 32
Lab/Clinic hours:

Co-requisite(s): HCR 414 Controls for HVACR; HCR 275 Applied Practices II; HCR 516 HVACR Systems II

Course Fee:

HCR126 Solar Thermal Installation — 2 credits
The Solar Thermal Installation course introduces solar thermal system requirements, design and configurations, installation techniques, operation and their application in residential and commercial construction.
Lecture hours: 16
Lab/Clinic hours: 32

Course Fee:

**HCR127 Hydronic Heating Systems — 2 credits**
To provide experiences in the operation, layout, and selection, and troubleshooting of residential and light commercial boilers.

Lecture hours: 16
Lab/Clinic hours: 48

Prerequisite(s): HCR429 HVAC App Controls w/Autom Sys
HCR602 HVACR Systems III
HCR852 Operation Strategies
HCR912 HVACR Field Experience

Course Fee:

**HCR201 Manual J and D HVAC Design — 3 credits**
The Manual J and Manual D Residential HVAC Design course will provide students with the necessary skills to analyze a residential building's heating and cooling loads, and design appropriate ductwork systems. Students will begin the process using pencil and paper worksheets and Excel spreadsheets; then finish using Manual J and Manual D dedicated software programs.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

**HCR265 Applied Practices I — 5 credits**
This course provides students with practice in servicing and repair of the equipment in the H.V.A.C.R. lab to develop basic proficiency.

Lecture hours: 0
Lab/Clinic hours: 240

Course Fee:

Prior to Fall 2006 the course number was HA102U

**HCR275 Applied Practices II — 5 credits**
This course provides students with opportunities to apply the theory to practice to become proficient in the service and repair of the equipment in the H.V.A.C.R. lab area.

Lecture hours: 0
Lab/Clinic hours: 240

Prerequisite(s): HCR414 Controls for HVACR and HCR516 HVACR Systems II

Course Fee:

Prior to Fall 2006 the course number was HA132U

**HCR402 Applied Electricity for HVACR — 3 credits**
This course presents the basic electrical characteristics, reading and developing circuit graphics, test equipment, controls and circuit application.

Lecture hours: 48
Lab/Clinic hours:
Prerequisite(s): HCR265 Applied Practices I, HCR444 HVACR Systems I, and MAT772 Applied Math

Course Fee: $150.00

Prior to Fall 2006 the course number was HA103U

**HCR414 Controls for HVACR — 4 credits**
This course presents a more advanced study of electrical controls and their applications and introduces electronics and the controls used in the H.V.A.C.R. systems.

Lecture hours: 64
Lab/Clinic hours:

Prerequisite(s): HCR516 HVACR Systems II, HCR275 Applied Practices II, HCR444 HVACR Systems I, and HCR402 Applied Electricity for HVACR

Course Fee:

Prior to Fall 2006 the course number was HA130U

**HCR429 HVAC App Controls with Autom Sys — 2 credits**
This course is a study of electronic controls and circuitry systems for H.V.A.C.R.

Lecture hours: 32
Lab/Clinic hours:

Co-requisite(s): HCR127 Hydronic Heating Systems
HCR602 HVACR Systems III
HCR852 Operation Strategies
HCR912 HVACR Field Experience

Course Fee:

**HCR444 HVACR Systems I — 4 credits**
This course presents alternative application of energy sources and equipment as they apply to heating, ventilation, air cooling, and refrigeration systems.

Lecture hours: 64
Lab/Clinic hours:

Course Fee: $1,375.00

Prior to Fall 2006 the course number was HA101U

**HCR516 HVACR Systems II — 6 credits**
This course presents a continuing and advanced study of systems used in heating, ventilation, air cooling, and refrigeration.

Lecture hours: 96
Lab/Clinic hours:

Course Fee: $105.00

Prior to Fall 2006 the course number was HA131U

**HCR602 HVACR Systems III — 2 credits**
This course presents alternative application of energy sources and equipment as they apply to heating, ventilation, air-cooling, and refrigeration systems.

Lecture hours: 32
Lab/Clinic hours:
Prerequisite(s): HCR516 HVACR Systems II and HCR502 Applied Controls for HVACR

Course Fee:

Prior to Fall 2006 the course number was HA151U

**HCR852 Operation Strategies — 2 credits**
This course presents customer relations and principles of successful business techniques. The job search and interview process will also be covered.

Lecture hours: 32
Lab/Clinic hours:

Prerequisite(s): HCR444 HVACR Systems I

Course Fee: $72.00

Prior to Fall 2006 the course number was HA154U

**HCR912 HVACR Field Experience — 2 credits**
This course places students in professional settings for experiences in the Heating, Cooling, and Air-Conditioning trades. Emphasis is given to observation of and participation in: troubleshooting, installation document preparation, and business practices.

Lecture hours: 0
Lab/Clinic hours:
Co-op Hours: 128

Prerequisite(s): All first and second semester Heating and Air Conditioning program courses.

Other Requirements: Student must have a cumulative GPA of 2.00 in the Heating and Air Conditioning program.

Course Fee:

Prior to Fall 2006 the course number was HA155U

**HEQ100 Introduction to Construction Equipment Operation — 1 credits**
The Introduction to Construction Equipment Operation course will provide students with the knowledge of basic requirements and skill sets necessary to become entry level equipment operators in the construction industry. Students will explore the various types of equipment and unique operating characteristics of each. Job site safety and preparation will be discussed as well as PPE and communications with employers, fellow workers, and the public.

Lecture hours: 16
Lab/Clinic hours:

Course Fee:

**HEQ102 Preoperational Inspection — 2 credits**
This Preoperational Inspection course will give students practice in completing, documenting, and maintaining, inspections and records for the machines they will operate. This course is an introduction in to the proper methods and routines needed to insure that a particular machine is safe to operate as well as properly lubricated and in good working order according to manufacturers’ specifications. Students will practice completing daily inspections reports and the steps necessary to report defects. Maintaining records of inspections and repairs will also be covered.

Lecture hours: 16
Lab/Clinic hours: 48

Co-requisite(s): A minimum grade of C in HEQ100 Introduction to Construction Equipment Operation.
Course Fee: $150.00

**HEQ104 Equipment Maintenance I — 2 credits**
This course will assist students in the basic knowledge and skills necessary to perform routine maintenance and repairs on different types of construction equipment. Individual component and systems service intervals will be discussed and analyzed. Students will receive practice in fluid and filter replacing as well as recognizing, troubleshooting, replacing and repairing defective and worn components and parts. The need for ongoing operator input and involvement in the maintenance process will be explored.

Lecture hours: 16
Lab/Clinic hours: 48

Prerequisite(s): HEQ100 Introduction to Construction Equipment Operation and HEQ102 Preoperational Inspection

Course Fee: $150.00

**HEQ105 Skid Steer Operation — 3 credits**
The Skid Steer Equipment Operation course will give students access to the hands-on operation of Skid Steer equipment used in the construction industry. Students will be able to develop the motor skills and competencies necessary to safely operate equipment in all sorts of workplace settings and environments. Students will gain practice in operating by completing exercises in moving materials, leveling, grading, digging, trenching, and loading trucks, in all types of terrain and job site conditions. Students will demonstrate proper inspection, start up, operating and shut down procedures on a daily basis. The ability to set up and complete projects according to a written site plan will be practiced.

Lecture hours: 16
Lab/Clinic hours: 96

Co-requisite(s): HEQ100 Introduction to Construction Equipment Operation and HEQ102 Preoperational Inspection

Course Fee: $150.00

**HEQ106 Compact Excavator Operation — 3 credits**
The Compact Excavator Operation course will give students access to the hands-on operation of compact excavators used in the construction industry. Students will be able to develop the motor skills and competencies necessary to safely operate equipment in all sorts of workplace settings and environments. Students will gain practice in operating by completing exercises in moving materials, leveling, grading, digging, trenching, and loading trucks, in all types of terrain and job site conditions. Students will demonstrate proper inspection, start up, operating and shut down procedures on a daily basis. The ability to set up and complete projects according to a written site plan will be practiced.

Lecture hours: 16
Lab/Clinic hours: 96

Co-requisite(s): HEQ100 Introduction to Construction Equipment Operation and HEQ102 Preoperational Inspection

Course Fee: $150.00

**HEQ107 Wheel Loader Operation — 2 credits**
The Wheel Loader Operation course will give students access to the hands-on operation of Wheel Loaders used in the construction industry. Students will be able to develop the motor skills and competencies necessary to safely operate loaders in all sorts of workplace settings and environments. Students will gain practice in operating by completing exercises in moving materials, leveling, grading, digging, and loading trucks, in all types of terrain and job site conditions. Students will demonstrate proper inspection, start up, operating and shut down procedures on a daily basis. The ability to set up and complete projects according to a written site plan will be practiced.
HEQ108 Backhoe Operation — 3 credits
The Backhoe Operation course will give students access to the hands-on operation of equipment used in the construction industry. Students will be able to develop the motor skills and competencies necessary to safely operate equipment in all sorts of workplace settings and environments. Students will gain practice in operating by completing exercises in moving materials, leveling, grading, digging, trenching, and loading trucks, in all types of terrain and job site conditions. Students will demonstrate proper inspection, start up, operating and shut down procedures on a daily basis. The ability to set up and complete projects according to a written site plan will be practiced.

Lecture hours: 16
Lab/Clinic hours: 196

Prerequisite(s): A minimum grade of C in HEQ100 Introduction to Construction Equipment Operation and a minimum grade of C in HEQ102 Preoperational Inspection.

Course Fee: $150.00

HEQ109 All Terrain Lifts Operation — 2 credits
The All-Terrain Lifts Operation course will give students access to the hands-on operation of all-terrain lifts and platforms used in the construction industry. Students will be able to develop the motor skills and competencies necessary to safely operate equipment in all sorts of workplace settings and environments. Students will gain practice in operating by completing exercises in moving materials, loading and unloading materials from trucks, and operating the work platform safely in all types of terrain and job site conditions. Students will demonstrate proper inspection, start up, operating and shut down procedures on a daily basis. Students will obtain an OSHA Certificate in Fork Lift Operation as part of this program.

Lecture hours: 16
Lab/Clinic hours: 48

Course Fee: $150.00

HEQ110 Support Equipment Operation — 2 credits
The Support Equipment Operation course will introduce students to various types of mechanized machines and devices used on job sites. Types of equipment include plate compactors, tampers, portable air compressors, jack hammers, concrete buggies, power trowels, concrete saws, and others. Students will gain practice in the safe operation and care of these types of machines.

Lecture hours: 16
Lab/Clinic hours: 48

Prerequisite(s): A minimum grade of C in HEQ100 Introduction to Construction Equipment Operation and a minimum grade of C in HEQ102 Preoperational Inspection.

Course Fee: $150.00

HEQ111 Jobsite Certifications — 4 credits
The Jobsite Certifications course will introduce students to the various training and certifications required by state and federal agencies for persons actively working on different types of job sites. They will become familiar with the federal and state agencies that have regulatory authority over the construction industry.

Lecture hours: 64
Lab/Clinic hours:

Prerequisite(s): A minimum grade of C in HEQ100 Introduction to Construction Equipment Operation and a minimum grade of C in HEQ102 Preoperational Inspection.

Course Fee:

HEQ113 Equipment Maintenance II — 3 credits
This course will assist students in the basic knowledge and skills necessary to perform routine maintenance and basic repairs on different types of construction equipment. Individual component and systems repair will be discussed and practiced. Students will gain hands-on practice in testing and repairing basic machine components. Arc welding and flame cutting will be introduced.

Lecture hours: 16
Lab/Clinic hours: 96

Prerequisite(s): A minimum grade of C in HEQ100 Introduction to Construction Equipment Operation and a minimum grade of C in HEQ102 Preoperational Inspection.

Course Fee: $100.00

HEQ114 Track Equipment Operation — 3 credits
The Track Equipment Operation course will give students access to the hands-on operation of track equipped machines used in the construction industry. Students will be able to develop the motor skills and competencies necessary to safely operate track equipped machines in all sorts of workplace settings and environments. Students will be exposed to the unique operating characteristics of track machines by completing exercises in moving materials, leveling, grading, digging, trenching, and loading trucks, in all types of terrain and job site conditions. Students will demonstrate proper inspection, start up, operating and shut down procedures on a daily basis. The ability to set up and complete projects according to a written site plan will be practiced.

Lecture hours: 16
Lab/Clinic hours: 96

Co-requisite(s): A minimum grade of C in HEQ100 Introduction to Construction Equipment Operation and a minimum grade of C in HEQ102 Preoperational Inspection.

Course Fee: $250.00

HEQ905 Workplace Experience — 3 credits
This course provides students with opportunities to gain on-the-job experience in the construction industry. Students will gain an understanding of qualities and skills needed for success in the equipment operating field. Coordination and guidance will be provided by department instructors.

Lecture hours: 0
Lab/Clinic hours:
Co-op Hours: 192

Prerequisite(s): A minimum grade of C in HEQ100 Introduction to Construction Equipment Operation and a minimum grade of C in HEQ102 Preoperational Inspection.

Course Fee:

HIS117 Western Civilization I: Ancient and Medieval — 3 credits
This course traces the development of Western Civilization from prehistory to 1300 C.E., the end of the High Middle Ages. The role of the Humanities is emphasized. The course explores major political, social, economic, scientific, intellectual, cultural, and religious developments contributing to Western societies. These include the significant events and contributions of early Middle Eastern civilizations, classical and Hellenistic Greece, the Roman Empire, its successors, the rise of the Western Christian church, and Medieval Europe.

Lecture hours: 48
HIS118 Western Civilization II: Early Modern — 3 credits
This course surveys the development of Western Civilization covering the end of the High Middle Ages of Europe to the French Revolution. The role of the Humanities is emphasized. The course will examine the major political, social, economic, intellectual, cultural, and religious developments contributing to the emergence of modern Western European Society. This includes the significant events and contributions of the Renaissance, the Reformation, the Columbian Exchange, the Scientific Revolution, and the Enlightenment.

Lecture hours: 48
Lab/Clinic hours:

HIS119 Western Civilization III: The Modern Period — 3 credits
This course will continue exploring the development of Western Civilization covering the period from the French Revolution until the present. The role of the Humanities is emphasized. The course will examine the major political, social, economic, intellectual, cultural, and religious developments contributing toward Western Society. Included are such major developments as the industrial revolution, the French revolution, Romanticism, European colonialism, World War I, World War II, the Cold War, the new European order, and the world of the Twenty-first Century.

Lecture hours: 48
Lab/Clinic hours:

HIS151 U.S. History to 1877 — 3 credits
This United States history course examines the country's Colonial experience, Revolutionary period, and 19th Century history through Reconstruction. The course includes political, economic, and social history of this period, as well as the development of American thought.

Lecture hours: 48
Lab/Clinic hours:

Prior to Fall 2006 the course number was HY140T, HY190T

HIS152 U.S. History Since 1877 — 3 credits
This United States history course examines the period from the end of reconstruction to the present. Emphasis is placed upon industrialization and its impact, the development of a strong federal government, an aggressive foreign policy, and a growing involvement in an international economy. The course includes political, economic, and social history of this period, as well as the development of American thought.

Lecture hours: 48
Lab/Clinic hours:

Prior to Fall 2006 the course number was HY150T, HY191T

HIS201 Iowa History — 3 credits
This history course is a survey of social, political, economic, and cultural developments in Iowa from pre-historic times to the present.

Lecture hours: 48
Lab/Clinic hours:
HIS251 U.S. History After 1945 — 3 credits
This United States history course examines the American experience from the end of World War II to the present. This course will include the political, diplomatic, intellectual, economic, and social history of the period.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): A minimum grade of 'C-' in HIS152 U.S. History Since 1877

HIS257 African-American History — 3 credits
This course examines the experiences of African-American society in the United States from origins in Africa to the present.

Lecture hours: 48
Lab/Clinic hours:

HIS277 History of Women in the U.S. — 3 credits
This course studies United States history from the perspective of women starting in the colonial period through the present day. The course examines the historical development of women's role in the family, concepts of sexuality, economic and political roles, and intellectual tradition. A comparative analysis of women's roles in other areas of the world is also provided.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): A minimum grade of 'C-' in HIS151 U.S. History to 1877, or HIS152 U.S. History Since 1877, or WST101 Women's Studies

Prior to Fall 2006 the course number was HY240T

HIT125 Essentials of Health Records — 2 credits
This course familiarizes students with the origin, uses, content and format of health records, including both paper and electronic health records. It covers required standards for health records, organization of records, and analysis of health record data.

Lecture hours: 32
Lab/Clinic hours: 0

HIT215 Introduction to CPT — 2 credits
Introduces the use of the CPT classification system with emphasis on coding in the physician's office for reimbursement purposes.

Lecture hours: 32
Lab/Clinic hours: 0

Prerequisite(s): A minimum grade of C- in HSC116 Beginning Medical Terminology

HIT240 Advanced Coding and Classification — 3 credits
Enables students to accurately apply more advanced ICD-CM codes to diseases and procedures in
compliance with reimbursement and prospective payment system guidelines with use of coding resources.

Lecture hours: 48
Lab/Clinic hours: 0

Prerequisite(s): A minimum grade of D- in HIT250 Coding I (ICD)

Course Fee:

**HIT250 Coding I (ICD) — 3 credits**
This course introduces the concepts necessary for entry-level coding of diseases, injuries, and hospital procedures.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): A minimum grade of D- in HIT250 Coding I (ICD)

Course Fee:

**HIT280 CPT-4 Coding — 3 credits**

Lecture hours: 48
Lab/Clinic hours: 0

Prerequisite(s): A minimum grade of D- in HIT250 Coding I (ICD)

Course Fee:

**HIT510 Coding Certification Review — 2 credits**
This course reviews and summarizes the information received in the medical billing/coding program to prepare students for a national coding certification exam.

Lecture hours: 32
Lab/Clinic hours: 0

Prerequisite(s): A minimum grade of D- in HIT250 Coding I (ICD) and a minimum grade of D- in HIT280 CPT-4 Coding.

Course Fee:

**HSC108 Introduction to Health Professions — 2 credits**
This course introduces the student to the healthcare system and provides an opportunity to explore a wide variety of health careers/professions. Content includes a broad overview of the state and federal regulations governing healthcare. Students will explore ethical and legal responsibilities within the healthcare system including expectations for professional behavior. Also included are the standards for HiPAA, infection control, and hazardous communication. Students will receive child and dependent adult abuse training and certification. Basic infection control protocols and vital sign skills will be conducted.

Lecture hours: 32
Lab/Clinic hours:

Course Fee:

**HSC113 Medical Terminology for Health Sciences — 2 credits**
This course presents the foundation necessary to develop a basic medical terminology vocabulary. Emphasis on the components of terms as related to each body system will be provided. The course further provides the student with the opportunity to properly spell, pronounce, and utilize medical terms. The utilization of a medical dictionary will also be a focus.
Lecture hours: 32
Lab/Clinic hours:

Course Fee:

**HSC116 Beginning Medical Terminology — 4 credits**
This course introduces the concepts necessary for building a basic medical vocabulary.

Lecture hours: 48
Lab/Clinic hours: 48

Course Fee:

**HSC124 Advanced Medical Terminology — 4 credits**
This course continues to build a medical vocabulary through the study of anatomy and physiology, common diseases, and surgeries of the body systems.

Lecture hours: 48
Lab/Clinic hours: 48

Prerequisite(s): A minimum grade of C- in HSC116 Beginning Medical Terminology.

Course Fee:

Prior to Fall 2006 the course number was MS132U

**HSC217 Introduction to Pathology — 3 credits**
Introduces the study of pathology. Includes description, etiology, signs and symptoms, diagnostic procedures, current medical treatment, progress and prevention of disease in each body system, with emphasis on basic concepts and terminology.

Lecture hours: 48
Lab/Clinic hours: 0

Prerequisite(s): A minimum grade of C- in HSC116 Beginning Medical Terminology

Course Fee:

**HUM130 Holocaust Perspectives: Confronting the Future — 3 credits**
The Holocaust, or Shoah, will be studied from a combination of historical, sociological, scientific, literary, and artistic approaches. The course will examine how this Twentieth Century genocide was used as a technique of political control and racial persecution. It will also look at the causes and functions of the Holocaust to draw parallels to the current resurgence of similar events and ideologies based on race, religion, and other prejudices.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

**HUM140 Shakespeare: Dramatist, Psychologist, Historian — 3 credits**
This course will include a study of several plays by William Shakespeare, including two tragedies, two histories, and two comedies. Study of these plays will start with an examination of the historical period, which provides both the context in which the plays were written and the settings within the plays. Focus will then shift to a dramatic analysis of recurring themes, ideas, characterizations, and psychological profiles. It will end with a discussion of the contributions of Shakespeare to Western civilization and humanity as a whole. Also taught as LIT145.

Lecture hours: 48
Lab/Clinic hours:
IND100 Basic Mechanical Systems — 2 credits
This course provides the student with introductory knowledge, skills in use of tools, and components by mechanics.

Lecture hours: 16
Lab/Clinic hours: 32

Course Fee:
Prior to Fall 2006 the course number was IS100U

IND111 Industrial Safety Mechanical Systems — 1 credits
This course provides students with information required to understand industrial safety issues and procedures. Studies include hazard communication, lock-out/tag-out, egress, fire extinguishers, MSD sheets, and material handling. Upon successful completion the student will be eligible for a 10 hour OSHA 501 certification.

Lecture hours: 16
Lab/Clinic hours:

Course Fee:
Prior to Fall 2006 the course number was ST248U

IND145 Mechanical Power Transfer — 2 credits
This course provides the student with the knowledge and skills necessary to troubleshoot maintain and repair mechanical power systems. Such as bearings, gears, clutches, belts, and seals.

Lecture hours: 16
Lab/Clinic hours: 32

Course Fee:
Prior to Fall 2006 the course number was IS106U

IND181 Heating, Ventilating, and Air Conditioning Systems — 2 credits
The Heating, Ventilating and Air Conditioning Systems (HVAC) course will introduce students to the environmental function control of temperature, moisture content, air quality and air circulation in a conditioned space. Our labs allow the learner to view and examine various types of HVAC systems with respect to installation, components, and characteristics.

Lecture hours: 16
Lab/Clinic hours: 32

Course Fee:

INT102 Residential Studio I — 5 credits
This orientation to the field of interior design examines the fundamental concepts while providing the necessary foundation for subsequent courses. Initial laboratory projects give the student an opportunity to solve design problems.

Lecture hours: 0
Lab/Clinic hours: 160

Course Fee: $99.00
Prior to Fall 2006 the course number was ID102U

INT104 Visual Presentation Methods I — 4 credits
This course is an introduction to drawing and rendering for interior design. The course covers the
fundamentals of free-hand sketching, paraline drawings and one-point and two-point perspectives. Studio projects will be rendered using hands-on and electronic media. The student will be introduced to the basic CAD skills needed to complete two-dimensional drawings using computer aided design software.

Lecture hours: 32
Lab/Clinic hours: 64

Course Fee:

**INT115 Basic Drafting Fundamentals — 3 credits**
This course is an introduction to the fundamentals of drafting and lettering. Students will learn to use drafting tools while applying the basic theory of architectural drafting. Universal drafting concepts, including line weights and types, scale, and elevation are addressed.

Lecture hours: 48
Lab/Clinic hours: 

Course Fee:

**INT117 Interior Design Materials I — 2 credits**
This course provides information about the properties, selection, specification, application and installation of materials used in the interior.

Lecture hours: 32
Lab/Clinic hours: 

Course Fee:

**INT119 Design and Color for Interiors — 2 credits**
This course provides an introduction to the elements and principles of design as it relates to the interior environment. Color properties, relationships and effects are analyzed. Two-dimensional studio projects will be explored through a variety of media.

Lecture hours: 32
Lab/Clinic hours: 

Course Fee:

**INT121 Visual Presentation Methods II — 3 credits**
This course is a continuation of AutoCAD and provides an introduction to other industry specific software.

Lecture hours: 48
Lab/Clinic hours: 

Prerequisite(s): INT104 Visual Presentation Methods I

Course Fee:

**INT123 Historical Interiors — 3 credits**
The course is a survey of historical interiors, furniture and architecture from the ancient world to the industrial period.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

**INT135 Residential Studio II — 4 credits**
This course is a continuation and compilation of the study of residential spaces. The student will execute the design of an entire home from initial concept to final presentation.
INT138 Kitchen Design — 4 credits
This studio course focuses on the planning and design of the residential kitchen using the National Kitchen & Bath Association (NKBA) guidelines. The student will complete a comprehensive project including the selection of cabinets, countertops, appliances, and finishes.

Lecture hours: 48
Lab/Clinic hours: 32

Prerequisite(s): INT102 Residential Studio I and INT104 Visual Presentation Methods I

Course Fee:

INT202 Contract Studio I — 5 credits
This course and Contract Studio II involve the design of non-residential interiors. While initial projects are office spaces, later studio problems concern other selected contract interiors. Project presentation allows experimentation with new media and techniques.

Lecture hours: 0
Lab/Clinic hours: 160

Prerequisite(s): INT135 Residential Studio II and INT209 CAD for Interior Designers

Course Fee: $690.00

Prior to Fall 2006 the course number was ID202U

INT203 Interior Design Materials II — 3 credits
This course continues the information about the properties, selection, specification, application and installation of materials used in the interior.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

INT234 Contract Studio II — 4 credits
This course continues to apply the design process to commercial space planning. Emphasis is on designing various commercial environments

Lecture hours: 16
Lab/Clinic hours: 96

Prerequisite(s): INT202 Contract Studio I

Course Fee:

INT236 Building Systems — 4 credits
This course includes an introduction to building construction and structure, mechanical systems, sustainable design strategies and architectural remodeling.

Lecture hours: 48
Lab/Clinic hours: 32
Prerequisite(s): INT135 Residential Studio II

Course Fee:

**INT237 Modern Interior — 2 credits**
The course is a survey of modern furniture, interiors and architecture from the industrial period to the present. The emphasis is on noted architects, designers, buildings and furniture.

Lecture hours: 32
Lab/Clinic hours:

Course Fee:

**INT241 Interior Design Study Tour — 1 credits**
The study tour incorporates a trip to a major market city where students have the opportunity to tour market showrooms, architecturally significant homes, commercial spaces, art museums, and other related activities.

Lecture hours: 0
Lab/Clinic hours: 32

Other Requirements: Must be 4th term Interior Design student with a 2.00 GPA.

Course Fee: $500.00

Prior to Fall 2006 the course number was ID240U

**INT335 Professional Practice — 3 credits**
This course examines the unique aspects of the profession of interior design and explores business principles, ethics, and techniques that contribute to a successful design practice. Students explore portfolio development and the job search skills for entry into the field.

Lecture hours: 48
Lab/Clinic hours:

Other Requirements: Must be 4th term Interior Design student with at least a 2.00 GPA.

Course Fee: $47.00

Prior to Fall 2006 the course number was ID236U

**INT337 Interior Design Seminar — 2 credits**
This course is an introduction to the interior design profession through directed course work and preparation for the internship experience. Students will explore portfolio development, presentation preparation, and the job search skills for entry into the field.

Lecture hours: 32
Lab/Clinic hours:

Prerequisite(s): Must be a fourth term Interior Design student. Must have a cumulative GPA of 2.00 or better.

Co-requisite(s): INT933 Internship

Course Fee:

**INT933 Internship — 2 credits**
Supervised experience in the field of interior design. Students will complete 128 hours of practical work experience while integrating theory, research and reflective practice.

Lecture hours: 0
Lab/Clinic hours: 128

Prerequisite(s): Must be a fourth term Interior Design student. Must have a cumulative GPA of 2.00 or better.
Co-requisite(s): INT337 Interior Design Seminar

Course Fee:

**ITP128 Introduction to Deaf Studies — 3 credits**
This course is a general introduction to deaf studies and is examined from a multidisciplinary perspective. There is discussion about deaf art, cinema, theater, socialization, and the difference between American Sign Language (ASL) and English.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

**LIT101 Introduction to Literature — 3 credits**
This course studies multiple literary forms and genres. Students will be introduced to literary terminology, analysis and interpretation of literature, and a variety of authors and literary styles. Instruction will emphasize the process of reading to develop and interpret meaning and classroom discussions encouraging students to share interpretations. Students will also respond to literature through informal and formal written assignments that foster skill in analysis and interpretation.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): A minimum grade of 'D-' in RDG040 College Preparatory Reading III AND A minimum grade of 'D-' in ENG061 College Preparatory Writing II (or appropriate placement scores: COMPASS Reading 82 and COMPASS Writing 65).

Course Fee:

Prior to Fall 2006 the course number was LR100T

**LIT133 Minority Voices in U.S. Literature — 3 credits**
This course will explore the issues and themes developed in the literature written by minority authors, often underrepresented in the traditional literary canon. The course will focus on works by various dispossessed groups, including African-Americans, Hispanics, Native Americans, Asians, and women. Genre to be read will include short stories, poetry, and novels. Emphasis will be on the ideas and issues shared in common by the various silenced groups and the unique perspective of each. Class activities will build on students’ skills in reading, discussing, and writing about literature acquired in Introduction to Literature.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): LIT101 Introduction to Literature

Course Fee:

Prior to Fall 2006 the course number was LR201T

**LIT142 Major British Writers — 3 credits**
This course is designed to give the freshman and/or sophomore level student a survey of the major author/trends in British Literature form Anglo-Saxon times to contemporary. Prose, poetry, and drama will be the featured genres. The course is designed to trace the development, achievements, and traditions of the British literary art. Major authors include Chaucer, Shakespeare, Donne, Johnson, Wordsworth, Shelley, Dickens, George Eliot, Lawrence, Shaw, and Conrad.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:
Prior to Fall 2006 the course number was LR110T

**LIT189 Women and Literature — 3 credits**
This course examines the predominant ways in which women have been portrayed by both male and female writers. It will also focus on the effects these recurring images may have on expectations for real women.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was LR202T

**LIT949 Special Topics in Literature — 1 credits**
This course will explore literature focused on a specific theme, genre, or author; introducing the specified topic and seeking to develop appreciation of the selected literature. Selected topics may include but are not limited to: detective fiction, science fiction, short stories, regional writers, or the work of a specific author.

Students may earn 1-3 credits.

Lecture hours: 16-48
Lab/Clinic hours:

Course Fee:

**MAP123 Administrative Medical Office Procedures — 3 credits**
This course will cover a variety of office procedures and practices such as proper telephone techniques, medicolegal responsibilities, medical records management, and fees and credit arrangements will be covered.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): HSC116 Beginning Medical Terminology and ADM105 Introduction to Keyboarding and BCA134 Word Processing and ADM148 Transcription

Course Fee:

Prior to Fall 2006 the course number was MS133U

**MAP132 Medical Transcription — 2 credits**
This course continues to build and strengthen skills involving grammar, punctuation, spelling, and use of reference materials by transcribing a variety of medical reports.

Lecture hours: 16
Lab/Clinic hours: 48

Prerequisite(s): HSC116 Beginning Medical Terminology, ADM148 Transcription, and ADM159 Proofreading and Editing

Course Fee:

Prior to Fall 2006 the course number was MS154U

**MAP141 Medical Insurance — 3 credits**
This course is an introduction to various details and forms relative to medical insurance programs and CPT coding.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): A minimum grade of D- in HIT250 Coding I (ICD).
**Course Fee:**

Prior to Fall 2006 the course number was MS136U

**MAP152 Computer Patient Billing — 2 credits**
This course is an introduction to an automated patient billing software will be covered in this course.

Lecture hours: 16  
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of D- in MAP141 Medical Insurance.

**Course Fee:**

Prior to Fall 2006 the course number was MS205U

**MAP511 Pharmacology for the Medical Secretary — 1 credits**
This course studies basic knowledge, understanding, and skills necessary to use common pharmaceutical references and spell commonly used drugs.

Lecture hours: 16  
Lab/Clinic hours:

Prerequisite(s): HSC116 Beginning Medical Terminology

**Course Fee:**

Prior to Fall 2006 the course number was MS152U

**MAT045 Fundamentals of Math — 4 credits**
This course is designed to help students meet minimum competencies for their basic skills in mathematics in the areas of whole numbers, fractions, decimals, percent, and ratio/proportion. Critical thinking, problem solving, and conceptual development are emphasized. Students will be prepared for learning higher order mathematical concepts.

Lecture hours: 64  
Lab/Clinic hours:

Prerequisite(s): Appropriate Placement Scores or Equivalent

Other Requirements: Appropriate placement scores or equivalent

**Course Fee:**

Prior to Fall 2006 the course number was SC034D

**MAT048 Preparatory Math for Elementary Algebra — 4 credits**
This course is designed to prepare students for Elementary Algebra. The course will provide instruction in arithmetic and introduce algebra. Students successfully completing the course will meet competencies in basic arithmetic with whole numbers, integers, fractions, and decimals. Successful completion will assure skills needed for basic algebraic problems and a variety of application problems.

Lecture hours: 64  
Lab/Clinic hours:

Prerequisite(s): Appropriate Placement Score

**Course Fee:**

**MAT052 Pre-Algebra — 3 credits**
This course is designed to combine both classroom instruction and individualized instruction to prepare students for Algebra. Teacher-student interaction as well as student interaction with one another will be
provided for and encouraged.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): MAT045 Fundamentals of Math, appropriate placement scores, or equivalent

Course Fee:

Prior to Fall 2006 the course number was SC035D

**MAT063 Elementary Algebra — 4 credits**

This course is designed to combine both classroom instruction and individualized instruction to provide students with the critical thinking skills necessary for their subsequent courses and programs. Teacher-student interaction, as well as student interaction with one another, will be provided for and encouraged.

Lecture hours: 64
Lab/Clinic hours:

Prerequisite(s): MAT052 Pre-Algebra, appropriate placement scores, or equivalent

Course Fee:

Prior to Fall 2006 the course number was SC038D

**MAT102 Intermediate Algebra — 4 credits**

This course will prepare the student for College Algebra and Trigonometry or other equivalent course work. Topics include properties of real numbers, linear and quadratic equations, graphs of polynomial functions, systems of equations, polynomial and rational expressions, inequalities, integral and rational exponents, radicals, and complex numbers.

Lecture hours: 64
Lab/Clinic hours:

Prerequisite(s): A minimum grade of C- in MAT 063 Elementary Algebra or COMPASS Algebra score 42-65.

Course Fee:

Prior to Fall 2006 the course number was MA113T

**MAT110 Math for Liberal Arts — 3 credits**

This is a one semester liberal arts mathematics course that satisfies the minimum general education requirement for math. The course is designed to impart math skills which are helpful in everyday life as well as to expose students to areas of mathematics they may not have seen before. Topics include problem-solving skills, set theory, algebra, consumer mathematics, probability, and statistics. Other topics may be included.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): MAT063 Elementary Algebra or equivalent COMPASS score

Course Fee:

Prior to Fall 2006 the course number was MA111T

**MAT122 College Algebra — 5 credits**

Begins a two semester sequence to prepare students for the calculus sequence. The central theme is the concept of functions, their properties, graphs and applications. Functions studied include polynomial, rational, exponential, and logarithmic functions.

Lecture hours: 80
Lab/Clinic hours:

Prerequisite(s): MAT102 Intermediate Algebra or equivalent COMPASS score

Course Fee:

Prior to Fall 2006 the course number was MA150T

**MAT128 Precalculus — 4 credits**

This one-semester pre-calculus course is intended for the student with a solid algebra background who intends to take calculus. It is also beneficial (but not required) for the student to have a background in trigonometry. The course will emphasize functions using an analytical, numerical, and graphical approach. The student will study linear, polynomial, rational, exponential, logarithmic and trigonometric functions along with their applications.

Lecture hours: 64
Lab/Clinic hours:

Prerequisite(s): Appropriate Placement Test Scores: ACT Math Score of 25 OR Compass Score of 51-100 in the College Algebra Domain or 31-50 in the Trigonometry Domain.

Other Requirements: Successful completion (C or better) of three years of high school mathematics including two years of algebra and one year of geometry and/or trigonometry, or appropriate mathematics placement score.

Course Fee:

Prior to Fall 2006 the course number was MA153T

**MAT134 Trigonometry and Analytic Geometry — 3 credits**

This course is the second course of a two-semester pre-calculus sequence. Topics include trigonometry and applications, vectors, analytic geometry, and polar and parametric equations.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): MAT122 College Algebra

Course Fee:

**MAT151 Math Reasoning for Teachers I — 3 credits**

This course explores mathematics as problem solving, communication, connections, and reasoning with regard to tasks involving numeration, relationships, estimation, and number sense of whole and rational numbers, probability and statistics. Activities and models appropriate to elementary school mathematics are used to represent these topics. This course does not count toward the mathematics requirement for the AA or AS degree.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): A minimum grade of 'C' in MAT063 Elementary Algebra or equivalent COMPASS score.

Course Fee:

**MAT156 Statistics — 3 credits**

This course is a study of descriptive statistics including graphical representation, central tendency, correlation and regression, intuitive treatment of probability, and inferential statistics including hypothesis testing.

Lecture hours: 48
Lab/Clinic hours:
Prerequisite(s): MAT063 Elementary Algebra or appropriate placement score.

Course Fee:

Prior to Fall 2006 the course number was MA140T, MA191T

**MAT210 Calculus I — 4 credits**
This course is the first in a calculus sequence. The course covers topics including functions and their graphs, limits, derivatives and applications of differentiation, and integrals.

Lecture hours: 64  
Lab/Clinic hours:

Prerequisite(s): MAT134 Trigonometry & Analytic Geometry and three years of high school mathematics including trigonometry

Course Fee:

Prior to Fall 2006 the course number was MA155T

**MAT216 Calculus II — 4 credits**
This course is a continuation of MAT-210 Calculus I. The course covers topics including integration techniques related to surface areas and volumes, infinite series, conic sections, parametric equations, and polar coordinates.

Lecture hours: 64  
Lab/Clinic hours:

Prerequisite(s): MAT210 Calculus I or equivalent

Course Fee:

Prior to Fall 2006 the course number was MA156T

**MAT219 Calculus III — 4 credits**
This course is a continuation of MAT-216 Calculus II. The course covers topics including integration and differentiation techniques related to vectors, vector-valued functions, functions of several variables, multiple integration, and vector analysis.

Lecture hours: 64  
Lab/Clinic hours:

Prerequisite(s): MAT216 Calculus II or equivalent

Course Fee:

Prior to Fall 2006 the course number was MA157T

**MAT504 Electronics Math I — 4 credits**
This course presents algebraic concepts, trigonometric concepts, and problem solving as applied to electronics. Specific topics included are: algebraic mathematical operations, equations manipulation and solving, quadratic equations, systems of equations, determinants and matrixes, special products and factoring, graphing, trigonometric functions, solutions of triangles, exponents and radicals, complex number systems, and elements of plane vectors.

Lecture hours: 48  
Lab/Clinic hours: 32

Prerequisite(s): MAT063 Elementary Algebra or appropriate assessment score

Course Fee:
MAT514 Electronics Math II — 4 credits
This course presents logarithms as applied to electronics; number systems for computers, Boolean algebra, mapping, and statistics as used in the electronic industry.

Lecture hours: 48
Lab/Clinic hours: 32
Prerequisite(s): MAT504 Electronics Math I
Course Fee:

MAT744 Technical Math — 4 credits
This course exposes students to the real number system, solution of linear equations, formula rearrangement, solution of word problems, functions and graphs, polynomials, factors and factorization, exponent functions, and exponential equations. Emphasis is placed on critical thinking and problem solving skills.

Lecture hours: 64
Lab/Clinic hours: 32
Prerequisite(s): MAT063 Elementary Algebra, appropriate COMPASS math placement score, or equivalent
Course Fee:

MAT747 Technical Math II — 4 credits
In this course students continue the study of mathematics in various technical applications including trigonometry, geometry, polynomials, vectors, and complex numbers.

Lecture hours: 64
Lab/Clinic hours: 32
Prerequisite(s): A minimum grade of C- in MAT744 Technical Math.
Course Fee:

MAT764 Math for Welders — 2 credits
This course introduces the basic mathematics principles that are used in the welding and metal fabrication field. Topics include whole numbers, common fraction, decimal fractions, measurement, percentages, and the metric system. This course includes hands on measuring activities.

Lecture hours: 32
Lab/Clinic hours: 32
Course Fee:

MAT772 Applied Math — 3 credits
This course is designed to present basic facts of arithmetic including whole numbers, fractions, decimals, powers, roots, English and metric measurement, ratio-proportion, percents, introduction to algebra, and introduction to geometry. Instruction includes use of scientific hand-held calculators with emphasis placed on critical thinking and problem solving skills.

Lecture hours: 48
Lab/Clinic hours:
Prior to Fall 2006 the course number was MA110U

**MAT778 Applied Geometry/ Trigonometry — 3 credits**
This course emphasizes practical applications of algebra, geometry, and trigonometry. An understanding of mathematical concepts is stressed in all topics ranging from general arithmetic processes to trigonometry and compound angles. The use of a scientific calculator is introduced and developed throughout the course.

Lecture hours: 48
Lab/Clinic hours:
Prerequisite(s): MAT772 Applied Math or appropriate placement score

Course Fee:

Prior to Fall 2006 the course number was MA116U

**MAT924 Honors Project — 1 credits**
This course involves in-depth independent research on an approved topic under supervision of a faculty member. Upon project's completion, results will be shared with community of peers and faculty. May be taken for up to 3 credits.

Lecture hours: 16
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was GT203U

**MFG107 Introduction to 3D Modeling — 3 credits**
This course will introduce students to designing parts using AutoCAD Inventor software, in addition to digitizer and 3-D printer technology. The course includes a basic overview of 3-D software capabilities applied to tooling design.

Lecture hours: 32
Lab/Clinic hours: 48

Course Fee:

Prior to Fall 2006 the course number was IT102U

**MFG111 Machinery's Handbook — 1 credits**
Students will gain knowledge and practical experience in the application and interpretation of information, charts, and formulas located within the Machinery's Handbook.

Lecture hours: 16
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was GT203U

**MFG122 Machine Trade Printreading I — 3 credits**
This course provides the student with the necessary knowledge to read and interpret basic prints used in the machining industry. It covers terminology, line-types, and drawing interpretation. First and third angle orthographic projection, dimensioning methods, and tolerancing are the major topics covered.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was IT102U

**MFG142 Geometric Dimensioning and Tolerancing — 3 credits**
This course introduces the student to the use of Geometric Dimensioning and Tolerancing. It consists primarily of learning the names, meanings, and application of the symbols used on engineering drawings that include GD&T.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): MFG122 Machine Trade Printreading I OR equivalent print reading skills as determined by the instructor.

Course Fee:

**MFG153 Basic Blueprint Reading — 3 credits**
This course covers principles essential to the interpretation of mechanical prints, sketching of views, and geometric tolerancing.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was IS101U

**MFG157 Intro to CNC Programming I — 2 credits**
In this course students will create basic programs for CNC mills. Student will use a plain ASCII text editor (like Notepad) to input basic industry standard G and M code programs. Programs are run on verification software to ensure accuracy. Speed and feed calculations, operator notes and start-up lines, mill tooling types and procedures, rectangular coordinates, canned (drill) cycles, and file management are other areas of study.

Lecture hours: 32
Lab/Clinic hours:

Co-requisite(s): MFG305 CNC Operations

Course Fee:

**MFG158 Intro to CNC Programming II — 2 credits**
In this course students will create programs for CNC mills using cutter diameter compensation, sub-routines, and sub-programs. Students will also write start-up lines and basic level programs on CNC lathes. Students will use a plain ASCII text editor (like Notepad) to input basic industry standard G and M code programs. Programs are run on verification software to ensure accuracy. Lathe tooling, typical turning procedures, cutter nose radius compensation, and tip orientation are other areas of study.

Lecture hours: 32
Lab/Clinic hours:

Prerequisite(s): MFG157 Intro to CNC Programming I

Co-requisite(s): MFG305 CNC Operations, MFG157 Intro to CNC Programming I

Course Fee:

**MFG193 Machine Shop Processes — 3 credits**
This course is designed to develop basic skills in precision measurement and layout tools, machine operations for lathes, mills, drills, and surface grinders.

Lecture hours: 16
Lab/Clinic hours: 64

Course Fee:
Prior to Fall 2006 the course number was IS158U

**MFG202 Manufacturing Processes — 2 credits**
Manufacturing processes are introduced through units of instruction which include: plastics and methods of processing them into products, the production and processing of ferrous and non-ferrous metals, foundry and casting processes, hot-work and cold-working metal processes, and metal forming processes.

Lecture hours: 32
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was IT210U

**MFG211 Basic Machine Theory — 2 credits**
This course presents basic machining processes and concepts necessary to set-up and operate machine shop equipment.

Lecture hours: 32
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was MC103U

**MFG214 Advanced Machine Theory — 2 credits**
Learn advanced machining processes and concepts used while operating machine shop equipment.

Lecture hours: 32
Lab/Clinic hours:

Prerequisite(s): MFG211 Basic Machine Theory and MFG222 Machine Operations I

Course Fee:

Prior to Fall 2006 the course number was MC131U

**MFG222 Machine Operations I — 4 credits**
This course is an introductory machining course presenting basic machining operations. The student will perform basic operations on lathes, horizontal + vertical-milling machines, drilling machines, saws, various types of grinders, and precision measuring equipment.

Lecture hours: 32
Lab/Clinic hours: 96

Prerequisite(s): MFG211 Basic Machine Theory

Course Fee: $242.00

Prior to Fall 2006 the course number was MC105U

**MFG228 Machine Operations II — 4 credits**
This is an advanced hands-on machining course.

Lecture hours: 32
Lab/Clinic hours: 96

Prerequisite(s): MFG211 Basic Machine Theory and MFG222 Machine Operations I

Course Fee: $60.00

Prior to Fall 2006 the course number was MC133U
MFG305 CNC Operations — 2 credits
This course introduces CNC Lathe and CNC Mill operation, shop safety, part inspection, CNC cutting tool types and uses, as well as part holding techniques. Students will work in small groups on industrial sized CNC lathes and CNC machining centers to simulate what CNC Operators do in industry. Fanuc and other common CNC machine controllers are used. Back-Plotting (to simulate cutting operations) is used to help eliminate errors before actually running parts on CNC equipment.

Lecture hours: 0
Lab/Clinic hours: 96
Course Fee: $42.00

Prior to Fall 2006 the course number was MC107U

MFG306 CNC Operations II — 2 credits
This program is similar to CNC Operations I except students will run Hawkeye’s CNC Lathes and Machining Centers individually rather than in groups to prove individual understanding of CNC machine operation. Manual equipment will be utilized to perform secondary operations. Manual and CMM inspection equipment will also be experienced. Students will back-plot, set-up, and run unproven programs to ensure the student can find and correct CNC program errors.

Lecture hours: 0
Lab/Clinic hours: 96
Prerequisite(s): MFG305 CNC Operations and MFG308 CNC Programming Theory
Course Fee: $42.00

Prior to Fall 2006 the course number was MC135U

MFG308 CNC Programming Theory — 4 credits
In this course students will create basic programs for CNC lathes and CNC mills and will use certification software to assure accuracy. Programming on other common CNC machine types are experienced through computer simulation. Students use Windows 95 to create CNC programs and perform file management operations. Other areas of study will include common machining techniques, tool holder and insert selection, and problem solving.

Lecture hours: 64
Lab/Clinic hours:
Prerequisite(s): MFG305 CNC Operations is recommended
Course Fee:

Prior to Fall 2006 the course number was MC109U

MFG309 CNC Programming Theory II — 4 credits
This course teaches mid-level CNC programming including controller specific canned cycles, cutter compensation, machine capabilities, and optimizing speeds and feeds by using insert manufacturer’s test data. Programming on other common CNC machine types are experienced through computer simulation. Students use Windows 95 to create CNC programs and perform file management operations. There is also a review of basic CNC machining techniques.

Lecture hours: 0
Lab/Clinic hours: 64
Prerequisite(s): MFG308 CNC Programming Theory
Course Fee:
Prior to Fall 2006 the course number was MC137U

**MFG321 Computer Aided Machining — 4 credits**
This course introduces the student to computer aided manufacturing. Master CAM software will be used to generate part geometry, tool paths, and machine language programs in both turning centers and machining centers.

Lecture hours: 64  
Lab/Clinic hours:  
Prerequisite(s): MFG306 CNC Operations II and MFG309 CNC Programming Theory II

Course Fee:  

Prior to Fall 2006 the course number was MC203U

**MFG363 Hydraulic Jigs and Fixtures — 3 credits**
In this course students will build jigs and fixtures using blueprints, knowledge, and skills developed in Basic Machine Concepts and Operations. Students are required to build and run hydraulic jigs and fixtures working within the tolerance of the print.

Lecture hours: 16  
Lab/Clinic hours: 96  
Prerequisite(s): MFG211 Basic Machine Theory and MFG222 Machine Operations I

Course Fee: $93.00

Prior to Fall 2006 the course number was MC150U

**MFG380 EDM Fundamentals — 2 credits**
This course covers the basics of wire and ram type EDMing. Classroom instruction includes the theory and fundamentals of EDMing, wire and electrode materials, the role of deionized water and dielectric fluids, power supplies, computer numerical control (CNC) EDM. Lab work consists of fabrication of electrodes and setup and operation of EDM machine tools.

Lecture hours: 16  
Lab/Clinic hours: 48

Course Fee:  

Prior to Fall 2006 the course number was IT212U

**MFG404 Basic Diemaking — 6 credits**
This is a course in basic tool and die theory, building procedures, and techniques. Units of instruction include principles of piercing, blanking, and bending as well as die terminology and construction applications.

Lecture hours: 32  
Lab/Clinic hours: 192  
Prerequisite(s): A minimum grade of 'D' in each of the following courses:  
- MFG211 Basic Machine Theory  
- MFG222 Machine Operations I  
- MFG214 Advanced Machine Theory  
- MFG 228 Machine Operations II  
Co-requisite(s): MFG410 CAD Die Design

Course Fee:  

**MFG410 CAD Die Design — 3 credits**
This course is the study of die assembly prints correlated with work sequencing and procedures used to efficiently produce and assemble dies. Activities include the use of CAD software to derive design information needed to build components in the die for a variety of die designs. The course will develop student skill in using assembly print information to plan the build process for various types of stamping dies.

Lecture hours: 32
Lab/Clinic hours: 48

Course Fee:

MFG430 Tooling Maintenance and Revision — 4 credits
This course will train students common repair and revision techniques performed on manufacturing tooling such as stamping dies, jigs, fixtures, and molds. The student will also learn about the installation and function of safety sensors, secondary operation components, gage, and inspection components mounted in production tooling.

Lecture hours: 32
Lab/Clinic hours: 96

Prerequisite(s): A minimum grade of 'D' in MFG404 Basic Diemaking.

Course Fee:

MFG432 Job Planning and Estimating — 2 credits
This course is the study of assembly die prints correlated with work sequencing and procedures used to minimize construction costs. Activities include detailing prints, work procedures, stock sizes, heat treatment considerations, time allotment, machine methods, purchase parts, principles of operation, and assembly techniques. Basic principles used in estimating initial costs in terms of processes involved, materials, and labor are included.

Lecture hours: 32
Lab/Clinic hours:

Prerequisite(s): MFG132 Machine Trade Printreading II

Course Fee:

Prior to Fall 2006 the course number was TD202U

MFG438 Advanced Die Making and Repair — 8 credits
This course is a continuation of MFG-408 Basic Die Making proceeding into more complex die making operations. Units of instruction include inverted, compound and progressive dies, drawing operations, and automatic stock feeding mechanisms. Die repair and maintenance procedures including sharpening, relocating die blocks, hole plugging, and revisions are covered.

Lecture hours: 48
Lab/Clinic hours: 240

Prerequisite(s): MFG408 Basic Diemaking

Course Fee: $30.00

Prior to Fall 2006 the course number was TD235U

MFG461 Plastics Materials — 2 credits
Units of instruction include general plastics-base materials, processes, and tooling theory. Lab work consists of building and running successfully an injection mold and a thermoforming mold.

Lecture hours: 16
Lab/Clinic hours: 48
Prerequisite(s): MFG408 Basic Diemaking

Course Fee:

Prior to Fall 2006 the course number was TD234U

**MFG502 Statistical Process Control — 3 credits**

This course is designed to study the processes necessary to plan machining processes efficiently and accurately by applying the principles of statistical process control.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was MC234U

**MFG514 Machine Maintenance — 4 credits**

Advanced theory and industrial application of machine repair, preventive maintenance, safe practices, installation, and troubleshooting with actual disassembly, inspection, and repair of machine shop equipment will be covered in this course.

Lecture hours: 32
Lab/Clinic hours: 64

Prerequisite(s): IND100 Basic Mechanical Systems and WEL339 Electromechanical Maintenance

Course Fee:

Prior to Fall 2006 the course number was ST249U

**MFG525 CMM Inspection and SPC — 3 credits**

This course teaches the student the capabilities and operation of Coordinate Measuring Machines used in manufacturing to inspect precision machined parts. Students will also be introduced to using inspection data in the Statistical Process Control method of insuring quality production. SPC fundamentals and software applications will also be stressed in this training.

Lecture hours: 16
Lab/Clinic hours: 48

Prerequisite(s): A minimum grade of ‘D’ in each of the following courses:
- MFG211 Basic Machine Theory
- MFG222 Machine Operations I
- MFG214 Advanced Machine Theory
- MFG228 Machine Operations II

Course Fee:

**MFG700 Introduction to Computer Numerical Control (CNC) Programming I — 1 credits**

Students will create basic programs for CNC lathes and CNC mills and will use verification software to assure error free programs. Students use Windows to create CNC programs and perform file management operations. Other areas of study will include common machining techniques, cutter selection, and first part run procedures.

Lecture hours: 16
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was PD130U

**MFG802 Systems Integration — 2 credits**
This course will allow the student to apply all of the information learned in the program to create an integrated manufacturing application project. Students will generally be assigned to work teams and will interact with business and industry in the area to define a project need, develop a project proposal, design and create the mechanical/electrical/fluid power system required to meet the project need, and coordinate with the sponsoring industry to install and troubleshoot the system.

Lecture hours: 16
Lab/Clinic hours: 32

Prerequisite(s): ELT736 Instrumentation & Control

Course Fee:

Prior to Fall 2006 the course number was ST247U

**MGT101 Principles of Management — 3 credits**
This course is a study of current theory and practice of leading a complex business organization toward the accomplishment of organizational objectives.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was MG191T

**MGT110 Small Business Management — 3 credits**
This course is a study of current theory and practices in creating and running a small business. The course includes the study of management functions as well as a discussion of business startup, including the creation of a business plan.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was MM230U

**MGT124 Problems and Issues in Supervision and Management — 3 credits**
This course provides students in the Human Resource Management program with the opportunity to reinforce their learning experiences from preceding HRM courses. Emphasis is placed on application of day-to-day HRM functions by completing exercises, cases, and simulations. Upon completion, students should be able to determine the appropriate actions called for by typical events that affect the status of people at work.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was MM231U

**MGT170 Human Resource Management — 3 credits**
This course is a study of the theory, principles, concepts and practices of developing and utilizing personnel within business organizations.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was MM231U

**MGT174 Training and Employee Development — 3 credits**
This course covers developing, conducting, and evaluating employee training with attention to adult learning principles. Emphasis is placed on conducting a needs assessment, using various instructional approaches, designing the learning environment, and locating learning resources. Upon completion, students should be able to design, conduct, and evaluate a training program.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

**MGT177 Staffing — 3 credits**
This course introduces the basic principles involved in managing the employment process. Topics include personnel planning, recruiting, interviewing and screening techniques, maintaining employee records, and voluntary and involuntary separations. Upon completion, students should be able to acquire and retain employees who match position requirements and fulfill organizational objectives.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

**MGT178 Employment Law — 3 credits**
This course introduces the principle laws and regulations affecting public and private organizations and their employees or prospective employees. Topics include fair employment practices, Equal Employment Opportunity (EEO), affirmative action, and employee rights and protections. Upon completion, students should be able to evaluate organization policy for compliance and assure that decisions are not contrary to law.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

**MGT180 Management and Labor Relations — 3 credits**
This course covers the history of the organized labor movement and the contractual relationship between corporate management and employees represented by a union. Topics include labor law and unfair labor practices, the role of the National Labor Relations Board (NLRB), organizational campaigns, certification/decertification elections, and grievance procedures. Upon completion, students should be able to act in a proactive and collaborative manner in an environment where union representation exists.

Lecture hours: 16
Lab/Clinic hours:

Course Fee:

**MGT190 Employee Compensation and Benefits Management — 3 credits**
This course will develop knowledge in the area of compensation and benefit practices including job evaluation, salary surveys, individual and group performance based pay plans, health insurance, wellness programs, pensions, and the associated legal environment. Compensation and benefit management theories will be integrated with organizational goals and objectives severing as the overall foundation for development and implementation.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

**MGT210 Management Decision Making — 3 credits**
This course is a capstone course which uses case studies to review all aspects of the Marketing Management program. Emphasis is placed on decision making and is to be taken in the student's final semester.
MGT222 Golf Club Operations — 3 credits
Students will study strategic, tactical, and operational practices regarding golf courses. Key determinants as to why some golf courses are successful and others struggle.

Lecture hours: 48
Lab/Clinic hours:
Course Fee:

Prior to Fall 2006 the course number was MM240U

MIL103 Military Survival Skills — 2 credits
This course is designed to impart an understanding of basic military survival skills. Concepts taught are: first aid/CPR, land navigation, shelter building; water and food gathering; fire building; desert, tropical, and arctic survival. Lab includes cross country skiing, snow showing, land navigation course; hands-on training of survival skills. One required survival weekend exercise and one optional weekend field training exercise (FTX).

Lecture hours: 32
Lab/Clinic hours: 16
Course Fee:

Prior to Fall 2006 the course number was ML103T

MIL110 Leadership and Personal Development — 1 credits
Introduces students to the personal challenges and competencies that are critical for effective leadership in the military. Students learn how the personal development of life skills such as goal setting, time management, physical fitness, and stress management relate to leadership, officership, and the Army profession. Discussion, 1 hr./wk.

Lecture hours: 0
Lab/Clinic hours:
Course Fee:

MIL115 Foundations of Tactical Leadership — 1 credits
Examines the challenges of leading in complex contemporary military operational environments. Dimensions of the cross-cultural challenges of military leadership in a constantly changing world are highlighted and applied to practical leadership tasks and situations. Discussion 2 hrs./wk.

Lecture hours: 0
Lab/Clinic hours:
Course Fee:

MIL120 Innovative Team Leadership — 2 credits
Explores the dimensions of creative and innovative military leadership strategies and styles by studying historical case studies and engaging in interactive student exercises. Students practice aspects of personal motivation and team building in the context of planning, executing, and assessing team exercises. Discussion, 2 hrs./wk.

Lecture hours: 0
Lab/Clinic hours:
Course Fee:
MIL122 Leadership in Changing Environment — 2 credits
Lecture hours: 0
Lab/Clinic hours:
Course Fee:

MKT110 Principles of Marketing — 3 credits
This course is an overview of the processes, problems, and activities associated with the planning and executing the conception, pricing, promotion, and distribution of ideas, goods, and services to create exchanges.

Lecture hours: 48
Lab/Clinic hours:
Course Fee:

Prior to Fall 2006 the course number was MM110T, MG192T

MKT140 Principles of Selling — 3 credits
Planned learning activities and experiences emphasize the psychology of selling, the selling process, sales techniques, and selling as a professional career.

Lecture hours: 48
Lab/Clinic hours:
Course Fee:

Prior to Fall 2006 the course number was MM133U

MKT142 Consumer Behavior — 3 credits
This course is the course within a marketing curriculum that most directly applies concepts, principles, and theories from the various social sciences to the study of the factors that influence the acquisition, consumption, and disposition of products, services, and ideas.

Lecture hours: 48
Lab/Clinic hours:
Course Fee:

Prior to Fall 2006 the course number was MM204U

MKT152 Advertising and Visual Merchandising — 3 credits
This course presents the fundamentals of advertising and visual merchandising as promotional tools. It incorporates the Integrated Marketing Communication (IMC) concept.

Lecture hours: 48
Lab/Clinic hours:
Course Fee:

Prior to Fall 2006 the course number was MM236U

MKT160 Principles of Retailing — 3 credits
Organized learning activities emphasize the status of retail environments, operations, locations, merchandising, pricing, and promotions.

Lecture hours: 48
Lab/Clinic hours:
Course Fee:
Prior to Fall 2006 the course number was MM130U

**MKT198 Sports Marketing — 3 credits**
This course will explain the basics of sports marketing, research, and delivery.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was MT110U

**MLT101 Introduction to Lab Science — 2 credits**
This course familiarizes the student with the MLT program and the field of laboratory medicine. The organization and role of the clinical laboratory are explored, as well as medical ethics and conduct, employment opportunities, and professional organizations.

Lecture hours: 32
Lab/Clinic hours:

Course Fee: $26.00

Prior to Fall 2006 the course number was MT114U

**MLT103 Lab Mathematics — 3 credits**
Mathematical calculations applicable to the clinical laboratory are studied in this course. Emphasis is on the Metric System and calculations involved in the preparation of laboratory solutions and dilutions.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was MT150U

**MLT110 Fundamental Lab Techniques — 3 credits**
This course is directed toward developing the knowledge and technical skill necessary to perform basic laboratory tests. Emphasis is placed on use and maintenance of laboratory equipment, quality control, and safety techniques.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was MT124U

**MLT120 Urinalysis — 3 credits**
This course includes the study of urine formation and methodology determining the physical, chemical, and microscopic properties of urine in normal and abnormal states.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee: $75.00

Prior to Fall 2006 the course number was MT110U

**MLT130 Hematology — 3 credits**
Hematology is the study of the formed elements of the blood: red blood cells, white blood cells, and platelets. Development and characteristics of these, methods of measurement, and abnormalities are covered.

Lecture hours: 32
Lab/Clinic hours: 32
Prerequisite(s): MLT110 Fundamental Lab Techniques

Course Fee: $30.00

Prior to Fall 2006 the course number was MT154U

**MLT230 Advanced Hematology — 3 credits**
This advanced course is a sequel to Hematology I, and includes an in-depth study of various anemias, leukemias, and other hematologic disorders.

Lecture hours: 32
Lab/Clinic hours: 8

Prerequisite(s): MLT130 Hematology

Course Fee:

Prior to Fall 2006 the course number was MT214U

**MLT233 Hemostasis and Thrombosis — 2 credits**
This course emphasizes the mechanism by which the body prevents loss of blood from the vascular system. There is a focus on chemical responses of blood vessels, platelet activation, and biochemical reactions that lead to clot formation and dissolution. Students learn to perform the tests used to detect coagulation deficiencies and abnormalities.

Lecture hours: 16
Lab/Clinic hours: 32

Prerequisite(s): MLT110 Fundamental Lab Techniques

Course Fee:

Prior to Fall 2006 the course number was MT218U

**MLT240 Clinical Chemistry I — 7 credits**
The student will learn the analytical techniques for precise measurement of chemical constituents of the blood and other body fluids. Clinical correlation of test results with states of health and disease will also be covered.

Lecture hours: 64
Lab/Clinic hours: 96

Prerequisite(s): CHM122 Introduction to General Chemistry MLT110 Fundamental Lab Techniques MLT103 Lab Mathematics

Course Fee:

Prior to Fall 2006 the course number was MT219U

**MLT250 Clinical Microbiology — 4 credits**
The emphasis in this course is on bacteria of medical importance with respect to their cultivation, isolation, identification, and pathogenicity. The student learns techniques of specimen collection, media preparation, culture, staining, biochemical testing, and antibiotic susceptibility testing. Mycology and virology are introduced.

Lecture hours: 48
Lab/Clinic hours: 48

Prerequisite(s): BIO185 Microbiology w/lab

Course Fee:

Prior to Fall 2006 the course number was MT156U
**MLT252 Parasitology — 1 credits**
This course includes a study of medically important human parasites with respect to life cycle, pathogenicity, and laboratory identification.

Lecture hours: 16
Lab/Clinic hours:

Course Fee: $40.00

Prior to Fall 2006 the course number was MT220U

**MLT260 Immunohematology — 4 credits**
Blood grouping, typing, antibody screening and identification, and compatibility testing are covered along with an overview of hemolytic disease of the newborn, processing of donor blood, and blood component therapy.

Lecture hours: 32
Lab/Clinic hours: 64

Prerequisite(s): MLT110 Fundamental Lab Techniques

Course Fee:

Prior to Fall 2006 the course number was MT216U

**MLT270 Immunology and Serology — 2 credits**
In this course the focus is on the reactions of the body’s immune system to foreign substances. There is emphasis on reactions between antigens and antibodies and students will learn to detect diseases such as syphilis, infectious mononucleosis, rheumatic fever, and others.

Lecture hours: 16
Lab/Clinic hours: 32

Prerequisite(s): MLT110 Fundamental Lab Techniques

Course Fee:

Prior to Fall 2006 the course number was MT222U

**MLT283 Clinical Practicum: Urinalysis — 1 credits**
This course is a continuation of MLT-120 Urinalysis and is designed to provide the student with clinical experience in the performance of routine urinalysis. Comparison of methodology with that covered in Urinalysis is stressed.

Lecture hours: 0
Lab/Clinic hours: 64

Prerequisite(s): MLT120 Urinalysis

Course Fee:

Prior to Fall 2006 the course number was MT224U

**MLT284 Clinical Practicum: Immunohematology — 2 credits**
This course is a continuation of MLT-260 Immunohematology and is designed to provide the student with clinical experience in specimen collection and performance of immunohematologic tests. Comparison and contrast with methodology of Immunohematology is stressed.

Lecture hours: 0
Lab/Clinic hours: 128

Prerequisite(s): MLT260 Immunohematology
MLT285 Clinical Practicum: Chemistry — 4 credits
This course is a continuation of MLT-240 Clinical Chemistry I and is designed to provide the student with clinical experience in specimen collection and performance of clinical chemistry tests. Comparison and contrast with methodology of Clinical Chemistry I is stressed and there is emphasis on use of automatic equipment.

Lecture hours: 16
Lab/Clinic hours: 192

Prerequisite(s): MLT240 Clinical Chemistry I

MLT286 Clinical Practicum: Immunology and Serology — 1 credits
This course is a continuation of MLT-270 Immunology and Serology I and is designed to provide the student with clinical experience in the performance of serologic testing. There is emphasis on the comparison and contrast of methodology with Immunology and Serology I.

Lecture hours: 0
Lab/Clinic hours: 64

Prerequisite(s): MLT270 Immunology and Serology

MLT287 Clinical Practicum: Hematology — 4 credits
This course is a continuation of MLT-130 Hematology I and Coagulation. It is designed to provide the student with clinical experience in specimen collection and performance of routine hematology and coagulation tests. Comparison and contrast with methodologies of Hematology I and Coagulation is stressed and experience with automation is provided.

Lecture hours: 16
Lab/Clinic hours: 192

Prerequisite(s): MLT130 Hematology and MLT230 Advanced Hematology

MLT288 Clinical Practicum: Microbiology — 4 credits
This course is a continuation of MLT-250 Clinical Microbiology I and MLT-252 Parasitology. It is designed to provide the student with experience in bacteriologic, mycotic, and parasitologic studies in a clinical setting. Practices and procedure of Clinical Microbiology I are compared and contrasted with clinical practice.

Lecture hours: 16
Lab/Clinic hours: 192

Prerequisite(s): BIO185 Microbiology w/lab and MLT250 Clinical Microbiology
MLT291 Clinical Practicum: Lab Survey and Review — 1 credits
This course is designed to give the student an opportunity, at the end of the clinical practicum, to review all
departments of the laboratory. Class time is provided for review of didactic materials and preparation for the
comprehensive examination. Clinic time is provided for review or additional experience in any or all
departments of the laboratory.

Lecture hours: 0
Lab/Clinic hours: 64

Prerequisite(s): MLT283 Clinical Practicum: Urinalysis, MLT284 Clinical Practicum: Immunohematology,
MLT285 Clinical Practicum: Chemistry, MLT286 Clinical Practicum: Immunology and Serology, MLT287 Clinical
Practicum: Hematology, MLT288 Clinical Practicum: Microbiology

Course Fee: $35.00

Prior to Fall 2006 the course number was MT232U

MMS103 Basic Digital Photography — 3 credits
An introduction to DSLR camera operation, including exposure control and modes, focus techniques, and
white balance. Artistic issues like framing, camera angle, use of color and composition will be addressed as
well. Students will produce final images using industry standard software. Students must furnish an approved
DSLR camera.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

MMS105 Audio Production — 3 credits
This course examines the principles of sound and acoustics and basic audio capture techniques. The
equipment for recording as well as production and editing audio will be analyzed and employed. Sound quality
and final output issues will be addressed.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

MMS111 Video Production I — 3 credits
This course will provide an introduction to the basics of video production, camera handling, digital exposure,
and workflow. Emphasis is on how to handle image workflow to produce a professional video output.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

MMS117 Social Media for Business — 3 credits
This course examines using social media outlets for promoting and doing business. The course will investigate
issues and strategies related to social media environments, customer relationships, marketing, managing your
communication, sustainability and what social media may look like in the future.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

MMS124 Survey of Commercial Video — 3 credits
This course examines how to produce a variety of types of videos for commercial use including promotional
videos, music videos, weddings, corporate videos and live events.
Lecture hours: 48
Lab/Clinic hours:

Course Fee:

**MMS134 Media Writing — 3 credits**
This course will focus on writing for media outlets including newspaper, television, radio, internet and public relations. Emphasis will be on writing clearly for both general and targeted audiences in order to communicate the desired message efficiently.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

**MMS213 Video Production II — 3 credits**
This course will explain advanced video production techniques.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of D in MMS111 Video Production I.

Course Fee:

**MMS214 Audio Production II — 3 credits**
This course is designed to assist the student in learning advanced principles and processes of audio production. The course builds on skills learned in Audio Production I will familiarize and inform the student on proper techniques in audio production for a variety of media outputs.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of D in MMS105 Audio Production.

Course Fee:

**MMS265 Mass Communications Law — 3 credits**
This course examines media law, including First Amendment, copyright and fair use. It focuses on social, political, and economic influences. It examines legal constraints for students planning to become professional communicators.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

**MMS300 Cinematography — 3 credits**
In this course students will gain hands-on experience in digital cinematography. Students will plan and practice camera techniques used for interior and exterior lighting, composition and framing, green screen techniques and other aspects of visual storytelling. Students will practice mechanical aspects of the lens: f-stops, depth of field and rack focus shots. Terminology and theory specific to cinematography will be explored as well as the strategies for common production and photography obstacles will be addressed and put into practice. Projects will be completed in groups as well as individual efforts.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): A minimum grade of D in MMS111 Video Production I and MMS213 Video Production II.

Course Fee:
MMS302 Solo Video Journalism — 3 credits
This course examines and explains the techniques for working in the field of video journalism as a sole practitioner.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

MMS304 Multimedia Applications — 3 credits
This course introduces multimedia applications for mobile devices including discussion of mobile devices, categories of mobile applications, security and target audiences. Different programming environments will be addressed in the class. Students will also investigate how users interact with their mobile devices, design and layout of mobile apps and deployment to app stores and marketplaces.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

MMS310 Independent Film Production — 3 credits
This course provides students with skills to write, produce, direct and edit fictional and non-fictional videos in a narrative format. Students will be instructed on methods and hands-on-skills to construct videos with emphasis on low-budget techniques to better understand the independent film/video market. This includes formulating a story with an angle, structure, content and style. Scriptwriting, budgeting, interviewing, and researching methods are demonstrated through hands-on exercises. Students will view/critique various contemporary documentaries and low budget films as they relate them to their own projects.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of D in MMS111 Video Production I and MMS213 Video Production II.

Course Fee:

MMS320 Recording Studio I — 3 credits
Course will introduce students to the basic operations of a recording studio. The course will detail proper methods for wiring of a studio, discuss studio acoustics, analyze studio design and address proper monitoring. The course will also demonstrate proper microphone placements and advanced compression methods.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of D in MMS105 Audio Production and MMS214 Audio Production II.

Course Fee:

MMS400 Video Production for Web Streaming — 3 credits
This course will provide students technical application and training in producing, shooting and broadcasting via web streaming. It will offer students an advanced understanding of traditional television studio environments, as well as field production. Students will experience hands-on training and team-oriented tasks in studio floor positions, studio lighting, 3-camera operating setup, microphone setups, floor management and set design. In addition, technical aspects of control room duties, live and archival streaming processes will be covered.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of D in MMS111 Video Production I and MMS213 Video Production II.

Course Fee:
MMS410 Film Editing — 3 credits
In this course, students are introduced to digital (computer) editing. A brief overview of the editing process is covered. Students learn the basics of capturing video and/or digital files, basic editing techniques, basic color effects, audio with video, and storing in a non-destructive style of editing. Students will produce their own edited versions of supplied footage.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of D in MMS111 Video Production I and MMS213 Video Production II.

Course Fee:

MMS420 Recording Studio II — 3 credits
This course will be an advanced study in producing within the studio environment. The course will provide hands-on use of the studio equipment including microphones, mixing boards, and digital audio software. Advanced recording techniques will be employed. Production of a variety of music styles and the proper steps involved in recording and mixing and outputting each will be addressed.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of D in MMS105 Audio Production, MMS214 Audio Production II, and MMS320 Recording Studio I.

Course Fee:

MUA106 Class Voice — 1 credits
This course provides instruction in fundamental vocal techniques. Breath support, diction, posture, vowel formation, tone production, and stage presence will be explored through standard vocal repertoire chosen for each student's voice type.

Lecture hours: 0
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was MU110T

MUA119 Class Piano — 1 credits
This course is designed for the student with no background in piano. It is especially recommended for the music student without piano experience, as well as the student who wishes to learn something of the piano for enjoyment. The student will begin to learn to read musical notation, develop the rudiments of technique, and become familiar with the keyboard. A minimum of three hours of practice per week is essential.

Lecture hours: 0
Lab/Clinic hours: 32

Course Fee:

MUA120 Applied Piano I — 1 credits
Individualized instruction in piano for the beginning, intermediate or advanced student. Requires fourteen 25 minute lessons during the semester. Additional outside practice/preparation is required. May be repeated for credit. No prior musical experience is necessary.

Lecture hours: 16
Lab/Clinic hours:

Course Fee: $380.00

MUA319 Applied Voice — 1 credits
Provides applied lessons and guided instruction in tone production, technique, musicianship, and performance practice. Students advance their skills through weekly lessons and regular practice of fundamental techniques and solo repertory. This course can be taken for up to 2 credits.

Lecture hours: 16
Lab/Clinic hours:

Course Fee:

**MUS100 Music Appreciation — 3 credits**
This course is an introduction to the musical arts through listening to and studying the music of various periods. Some sections of the course may be presented by live musicians. Allied arts, including dance, painting, and literature may be used to demonstrate the relatedness of music to the larger scope of human experience.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was MU206T

**MUS102 Music Fundamentals — 3 credits**
This course is an introduction to music theory, basic skills, and vocabulary. The course is for non majors with limited background in music fundamentals or as preparation for music major theory courses. Emphasis is placed on notation, key/time signatures, rhythm, and aural training.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

**NET109 A+ Certification Prep — 4 credits**
This course will teach basic knowledge of operating systems (Windows 9x, Windows NT 4.0 Workstation, Windows 2000, Windows Me, and Windows XP). This course will teach the important knowledge and skills necessary to competently install, build, configure, upgrade, troubleshoot, and repair personal computer compatible hardware including troubleshooting basic network and internet connectivity, dial-up, DSL, and cable. Additionally, this course will also cover the latest memory, bus, peripherals, and wireless technologies.

Lecture hours: 32
Lab/Clinic hours: 64

Course Fee:

**NET152 Advanced Network Technologies — 3 credits**
This course will cover the advanced topics of networking topologies, management utilities, performance monitoring and management, construct network security, develop and maintain network documentation and determine appropriate action for common problems. Students will learn skills associated with network remote access, performance monitoring and extension of network services via wireless technologies. This course will build and expand upon Cisco 1-4 concepts and skills.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

**NET213 CISCO Networking — 4 credits**
This course introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. 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. The principles and structure of IP
addressing and the fundamentals of Ethernet concepts, media, and operations are introduced 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 such as routers and switches, and implementing IP addressing schemes.

Lecture hours: 48
Lab/Clinic hours: 32

Course Fee:

NET217 CCNA Exploration Network Fundamentals — 3 credits
This course introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. 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. The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operation are introduced to provide a foundation for network understanding.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

NET218 CCNA Exploration Routing Concepts — 3 credits
This 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.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): NET217 CCNA Exploration Network Fundamentals

Course Fee:

NET219 CCNA Exploration Switching and Wireless — 3 credits
This course provides a comprehensive theoretical and practical approach to designing, implementing and maintaining a converged 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 VLAN's, STP, VTP and inter-VLAN routing.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): NET218 CCNA Exploration Routing Concepts

Course Fee:

NET220 CCNA Exploration Accessing the WAN — 3 credits
This course discusses the WAN technologies and network services required by converged applications on enterprise networks. The course uses Cisco Network Architecture to introduce integrated network services and explains how to select the appropriate devices and technologies to meet network requirements. Student learn how to implement and configure common datalink protocols and how to apply WAN security concepts, principles of traffic, access control and correct common enterprise network implementation issues.

Lecture hours: 0
Lab/Clinic hours: 3

Prerequisite(s): NET219 CCNA Exploration Switching and Wireless
NET225 Routing and Switching Essentials — 4 credits
This course describes the architecture, components, and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with RIPv1, RIPv2, single area and multi-area OSPF, virtual LANS, and inter-VLAN routing in both IPv4 and IPv6 networks.

Lecture hours: 48
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of C in NET213 CISCO Networking.

Course Fee:

NET268 CCNA Routing and Switching: Scaling Networks — 3 credits
This is the third of four courses leading to the Cisco Certified Network Associate (CCNA) designation. This course describes the architecture, components, and operations of routers and switches in a larger and more complex network. Students learn how to configure routers and switches for advanced functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with OSPF, EIGRP, STP, and VTP in both IPv4 and IPv6 networks. Students will also develop the knowledge and skills needed to implement DHCP and DNS operations in a network.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of C in NET225 Routing and Switching Essentials.

Course Fee:

NET269 CCNA Routing and Switching: Connecting Networks — 3 credits
This is the fourth of four courses leading to the Cisco Certified Network Associate (CCNA) designation. This course discusses the WAN technologies and network services required by converged applications in a complex network. The course enables students to understand the selection criteria of network devices and WAN technologies to meet network requirements. Students learn how to configure and troubleshoot network devices and resolve common issues with data link protocols. Students will also develop the knowledge and skills needed to implement IPSec and virtual private network (VPN) operations in a complex network.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of C in NET268 CCNA Routing and Switching: Scaling Networks.

Course Fee:

NET310 Virtual Machines — 3 credits
This course will cover the concepts of virtualization including hardware and software. Topics will include benefits vs. risks analysis, installation and configuration, operation and maintenance and disaster recovery.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of C in NET313 Windows Server.

Course Fee:

NET313 Windows Server — 3 credits
This course provides the core foundation for supporting network based servers. Students will learn the skills necessary to install, configure, customize, optimize, network, integrate and troubleshoot a server based
operating system. Students will study the design, implementation, and support a Network Server network including specialized servers that are common to most networks.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of C in NET109 A+ Certification Prep Course and NET213 CISCO Networking

Course Fee:

**NET343 Windows Directory Services — 3 credits**
This course concentrates on the specifics of active directory administration. The course includes setting up, maintaining, and administrating the active directory services of current windows server products.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): NET313 Windows Server

Course Fee:

**NET346 Windows Exchange Server — 3 credits**
This course provides students with the knowledge and skills that are needed to update and support a reliable, secure messaging infrastructure. This infrastructure is used for creating, storing, and sharing information by using Microsoft Exchange Server in a medium-sized to large-sized (100 to 5,000 seats) messaging environment. This course offers a significant amount of hands-on practices, discussions, and assessments that assist students in becoming proficient in the skills that are needed to update and support Exchange Server.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): NET313 Windows Server

Course Fee:

**NET412 Linux System Administration — 3 credits**
This course will introduce students to the Linux Operating System and is designed for students with little or no previous experience with Linux. Students will gain experience and understanding of basic setup and installation, configuration, navigation, permissions, command shells, and GUI environments available on Linux systems.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

**NET474 Certification Preparation — 1 credits**
This course is designed as a review and final preparation for students taking Information Technology certification tests.

Lecture hours: 16
Lab/Clinic hours:

Prerequisite(s): Instructor approval required. Must have satisfactory grades in supporting classes and demonstrate motivation to attain certification.

Course Fee:

**NET475 Certification Preparation — 2 credits**
Course is designed as a review and final preparation for students taking Information Technology industry
certification exams.

Lecture hours: 32
Lab/Clinic hours:

Prerequisite(s): Instructor Approval Required. Must have satisfactory grades in supporting classes and demonstrate motivation to attain certification

Course Fee:

**NET612 Fundamentals of Network Security — 3 credits**
This course is designed to provide students with a fundamental understanding of network security principles and implementation. Students examine the technologies used and principles involved in creating a secure computer networking environment.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): NET313 Windows Server

Course Fee:

**NET710 SQL Database — 2 credits**
This course is designed to give the student the basics of computer database administration. To teach the student what a database server is and how it is used in a modern computer network. The course will inform the student about the components of the database and the tools used to tune the database software for optimum performance.

Lecture hours: 16
Lab/Clinic hours: 32

Prerequisite(s): CIS303 Introduction to Data Base AND NET313 Windows Server

Course Fee:

Prior to Fall 2006 the course number was IF202U

**NET792 Help Desk I — 3 credits**
Students will learn to meet the demands of the user support industry. They will develop knowledge and skills commonly found in a user support position. Topics covered will include troubleshooting and problem solving, user needs assessment, documentation, training, and system installation. Through these topics, the students will learn the concepts and theories of technical support and customer service. They will also spend time addressing the managerial, technical, and psychological issues related to supporting technology and its users.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

**NET916 Experiential Learning — 3 credits**
This course will allow students to put the skills obtained in the program to practical use in a simulated real world environment. In addition, students will refine teamwork skills and learn to conduct their actions in an appropriate manner for the business world. Up to 5 credits may be earned for this course.

Lecture hours: 16
Lab/Clinic hours: 64-128

Prerequisite(s): Instructor Consent. Instructor consent is needed to verify that students are getting the correct section for their major and that only fourth semester graduating students take this course.

Course Fee:
NET932 Internship — 2 credits
This course provides students with the opportunity to gain practical work experience, while applying skills and techniques learned in their program of study, under the supervision of an employer, manager, or supervisor.

Lecture hours: 0
Lab/Clinic hours:
Co-op Hours: 128

Prerequisite(s): A minimum grade of C in NET109 A+ Certification Prep Course.

Other Requirements: Must be in program major and have completed 30 credits in Network Administration and Engineering, Information Systems Management, or Web Design and Development.

Course Fee:

OTA101 Introduction to Occupational Therapy — 3 credits
This course provides an introduction to the key concepts of occupational therapy as a health and wellness profession. The roles of occupational therapy in a range of traditional and emerging health care, community-based, and education settings are explored. Foundational and philosophical concepts, professional ethics, and the emergence of occupational therapist and occupational therapy assistant roles are investigated. Students will participate in activities to guide them in developing an understanding of the occupational therapy process and the skills needed by a healthcare professional.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): Acceptance into Phase 2 of Occupational Therapy Assistant program.

Course Fee: $228.00

OTA102 Human Movement and Occupation — 3 credits
Study of the interrelationship between the central nervous system, peripheral nervous system, and musculoskeletal system and analysis of functional movement required for engagement in occupation. Formal and informal biomechanical assessment methodologies are presented. Students will gain skill in utilizing assessment data for the occupational therapy process in collaboration with the occupational therapist.

Lecture hours: 16
Lab/Clinic hours: 64

Prerequisite(s): Admission to Phase II of the Occupational Therapy Assistant program.

Course Fee:

OTA103 Task Analysis — 3 credits
The development and emergence of human occupational performance throughout the lifespan is examined by exploring areas of occupation, occupational roles, habits and routines. Students will learn to analyze occupational tasks and functional activity demands, grade and adapt activities, and build the basic skills necessary for teaching therapeutic activities to meet the needs of occupational therapy consumers, either individually or in groups. Emphasis will be placed on the use of occupation-based media as a means of understanding a client’s cognitive and functional performance. The significance of context and environment will also be explored in relationship to program planning and implementation of therapeutic interventions. Additional topics include an introduction to note writing and goal development.

Lecture hours: 16
Lab/Clinic hours: 64

Prerequisite(s): Admission to Phase II of the Occupational Therapy Assistant program.

Course Fee:
OTA104 Assistive Tech and EM — 2 credits
An introduction to the role of assistive technology and environmental modification used to facilitate occupational performance. Topics will include: determination of need, selection of and instruction in use of assistive technology and/or environmental modification, low vs. high tech equipment options, and assessment of client safety during occupational performance.

Lecture hours: 16
Lab/Clinic hours: 32

Prerequisite(s): Admission to Phase II of the Occupational Therapy Assistant program.

Course Fee:

OTA201 Pediatrics and Occupation — 3 credits
The first in a sequence of courses addressing conditions causing disruption of occupational behaviors, skills, and life roles in humans throughout the lifespan. This course presents occupational and developmental frameworks for understanding the occupational nature of infants and children through the adolescent period, their families, and caregivers. Means of applying the occupational therapy process by the occupational therapy assistant is studied within the contexts of a variety of disorders, conditions, and circumstances affecting this period of human development.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): Admission to Phase II of the Occupational Therapy Assistant program.

Course Fee:

OTA202 Pediatric OTA Skills — 3 credits
Structured experiential learning will provide opportunities for the student to solidify knowledge, develop and practice professional skills and behaviors utilized in the occupational therapy process with infants and children through the adolescent period and their families in a variety of settings.

Lecture hours: 16
Lab/Clinic hours: 64

Prerequisite(s): Admission to Phase II of the Occupational Therapy Assistant program.

Course Fee: $356.00

OTA203 Level I Fieldwork A — 2 credits
Students will be participant-observers in settings providing occupational therapy services to children and/or adolescents. Emphasis will be placed on development of professional work habits and supervisory collaboration.

Lecture hours: 16
Lab/Clinic hours: 48

Prerequisite(s): Admission to Phase II of the Occupational Therapy Assistant program.

Course Fee: $253.00

OTA301 Adult Conditions and Occupation — 4 credits
The second in a sequence of courses, that addresses adult conditions causing disruption of occupational behaviors, skills and life roles in humans throughout the lifespan. This course present theoretical frameworks and models for understanding the occupational nature of early to middle adulthood at home, at work, and in the community. Approaches to applying the occupational process by the occupational therapy assistant is studied within the contexts of a variety of disorders, conditions, and circumstances affecting this period of human development.
Lecture hours: 64
Lab/Clinic hours:

Prerequisite(s): A minimum grade of "C" in OTA201 Pediatrics & Occupation.

Course Fee:

**OTA302 Physical OTA Skills — 3 credits**
Structured experiential learning will provide opportunities for the student to solidify knowledge, develop and practice professional behaviors utilized in the occupational therapy process for individuals experiencing disruption in motor and sensory-perceptual abilities needed for adaptive occupational performance.

Lecture hours: 16
Lab/Clinic hours: 64

Prerequisite(s): A minimum grade of "C" in OTA102 Human Movement & Occupation.

Course Fee: $298.00

**OTA303 Psychosocial OTA Skills — 3 credits**
Structured experiential learning will provide opportunities for the student to solidify knowledge, develop and practice professional skills and behaviors utilized in the occupational therapy process for individuals experiencing disruption in social, emotional and interactional abilities needed for adaptive occupational performance. Both individual and group intervention strategies are explored.

Lecture hours: 16
Lab/Clinic hours: 64

Prerequisite(s): A minimum grade of "C" in OTA202 Pediatric Occupational Therapy Assistant Skills.

Course Fee:

**OTA304 Level I Fieldwork B — 2 credits**
Students will be participant-observers in settings providing occupational therapy services to adult consumers. Emphasis will be placed on development of professional work habits and supervisory collaboration.

Lecture hours: 16
Lab/Clinic hours: 48

Prerequisite(s): A minimum grade of "C" in OTA203 Level I Fieldwork A.

Course Fee:

**OTA401 Elders and Occupation — 2 credits**
The third in a sequence of courses addressing conditions causing disruption of occupational behaviors, skills and life roles in humans throughout the lifespan. This course presents theoretical frameworks and models for understanding the occupational nature of late adulthood at home, at work, and in the community. Approaches to applying the occupational therapy process by the occupational therapy assistant is studied within the context of a variety of disorders, conditions, and circumstances affecting this period of human development.

Lecture hours: 32
Lab/Clinic hours:

Prerequisite(s): A minimum grade of "C" in OTA201 Pediatrics & Occupation.

Course Fee:

**OTA402 OTA Skills for Elders — 2 credits**
Structured experiential learning will provide opportunities for the student to solidify knowledge, develop and practice professional skills and behaviors utilized in the occupational therapy process with elder consumers in a variety of settings.
Lecture hours: 16
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of "C" in OTA103 Task Analysis.

Course Fee:

OTA501 Professional Practice for OTA — 3 credits
This course speaks to the management and service roles of the occupational therapy assistant, as well as ongoing responsibilities of a career as an occupational therapy healthcare professional. Active learning strategies requiring student interdependence serve to prepare the student to transition to the final portion of the program - fieldwork education.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): A minimum grade of "C" in OTA101 Introduction to Occupational Therapy.

Course Fee:

OTA502 Level II Fieldwork A — 5 credits
The first of two courses consisting of 8 weeks of full time community-based clinical education. Students will participate in the delivery of occupational therapy services, in collaboration and with supervision from a currently licensed or credentialed occupational therapist or occupational therapy assistant. They will work with individuals at different point of the lifespan, experiencing disruption of occupational performance.
CO-OP Hours: 320

Lecture hours: 0
Lab/Clinic hours:
Co-op Hours: 320

Prerequisite(s): A minimum grade of ‘C’ in all of the following courses:
- OTA301 Adult Conditions & Occupation
- OTA302 Physical Occupational Therapy Assistant Skills
- OTA303 Psychosocial Occupational Therapy Assistant Skills
- OTA304 Level I Fieldwork B
- OTA401 Elders & Occupation
- OTA402 Occupational Therapy Assistant Skills for Elders
- OTA501 Professional Practice for Occupational Therapy Assistant

Course Fee:

OTA503 Level II Fieldwork B — 5 credits
The second of two courses consisting of eight weeks of full time community-based clinical education. Students will participate in the delivery of occupational therapy services, in collaboration and with supervision from a currently licensed or credentialed occupational therapist or occupational therapy assistant. They will work with individuals at different points of the lifespan, experiencing disruption of occupational performance.
CO-OP Hours: 320

Lecture hours: 0
Lab/Clinic hours:
Co-op Hours: 320

Prerequisite(s): A minimum grade of ‘C’ in OTA502 Level II Fieldwork A.

Course Fee:

PEA102 Aerobic Fitness I — 1 credits
This aerobic course, designed to improve physical fitness levels, starts at the beginner level with students
progressing at their own pace. Participants will be given the opportunity to engage in various types of cardiovascular exercise, some being set to music. Abdominal and low-back exercises are also emphasized.

Lecture hours: 0
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was PE111T

**PEA114 Bicycling I — 1 credits**
This aerobic course introduces students to the activity of bicycling. Bicycling is considered a lifetime leisure activity as well as a great source of physical fitness. Students will learn bike fundamentals and safety as well as how to build up endurance for distance rides.

Lecture hours: 0
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was PE107T

**PEA117 Bowling I — 1 credits**
This skill course introduces students to the lifetime activity of bowling. The course will cover basic fundamentals of bowling such as rules and etiquette, approach, ball delivery, strikes, spares, and scoring. Individual, league, and tournament play will also be included.

Lecture hours: 0
Lab/Clinic hours: 32

Course Fee: $90.00

Prior to Fall 2006 the course number was PE105T

**PEA119 Step and amp; Pump I — 1 credits**
This aerobic course is designed for beginners and introduces the fundamentals of step and of weight lifting using step. The main focus of this class is cardiovascular strength and endurance with other physical benefits including, but not limited to, increased strength, flexibility, coordination, agility, and body awareness.

Lecture hours: 0
Lab/Clinic hours: 32

Course Fee:

**PEA123 Circuit Training — 1 credits**
This aerobic course incorporates cross-training techniques allowing for an increased caloric expenditure with simultaneous improvement in muscular strength and endurance and flexibility. Alternating between resistance training, cardiovascular, and flexibility exercises provides the benefits of all three types of activities in one exercise session.

Lecture hours: 0
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was PE112T

**PEA125 Indoor Cycling — 1 credits**
This aerobic course introduces students to a low-impact, go at your own pace, cardiovascular workout with no complicated moves to learn. The class is set to music, conducted in a group format, and uses specially built stationary bicycles to improve current health and fitness levels.
PEA128 Distance Running I — 1 credits
This aerobic course is an introductory level course designed to expose students to the lifelong activity of jogging. No previous running experience is necessary. Emphasis will be placed on proper running form and efficiency, monitoring appropriate intensity, and progressing at one's own pace.

Lecture hours: 0
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was PE102T

PEA134 Golf I — 1 credits
This skill course introduces the students to the lifetime leisure activity of golf. This will be a fundamental course, teaching the basics of the game from scoring to the actual playing. This course will also cover golf etiquette. The course will culminate with a class tournament.

Lecture hours: 0
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was PE104T

PEA150 Powerwalking — 1 credits
Power walking is one of the most convenient forms of exercise. It takes minimal equipment and can be done anywhere. This course is designed to provide students with the opportunity to learn a lifelong physical activity. Power walking is also an excellent way to start a fitness program.

Lecture hours: 0
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was PE113T

PEA154 Racquetball I — 1 credits
This skill course is an introductory course designed to provide basic skills of racquetball: serves, kill shots, passing shots, ceiling shots, offensive and defensive strategies, and use of the back wall and corners. The focus is on learning the game, rules, safety, and sportsmanship by playing the game in various formats—singles, doubles, cutthroat, and tournament play.

Lecture hours: 0
Lab/Clinic hours: 32

Course Fee: $80.00

Prior to Fall 2006 the course number was PE114T

PEA157 Rollerblading — 1 credits
This aerobic course will teach the necessary basic skills for students to become active roller bladers. Along with the fundamentals, this course will also cover safety and prevention.

Lecture hours: 0
Lab/Clinic hours: 32
PEA171 Self-Defense — 1 credits
This skill course introduces students to basic concepts and techniques of Self-Defense. Students will learn how to defend themselves from many types of hand and weapon attacks as well as learn to use everyday items for defensive weapons. The course is designed to give students a basic knowledge of what to do and how to react in various situations.

Lecture hours: 0
Lab/Clinic hours: 32

Course Fee:

PEA174 Tennis I — 1 credits
This skill course introduces students to the lifetime activity of tennis. This will be a fundamental course, teaching the basics of the game from scoring to the actual playing. The course will also cover tennis etiquette.

Lecture hours: 0
Lab/Clinic hours: 32

Course Fee: $40.00

PEA176 Volleyball I — 1 credits
This skill course introduces students to the lifetime activity of volleyball. This will be a fundamental course teaching the basics of the game from scoring to the actual playing. This course will also cover volleyball etiquette. The class will play two on two, three on three, and standard volleyball.

Lecture hours: 0
Lab/Clinic hours: 32

Course Fee: $80.00

PEA187 Weight Training I — 1 credits
This skill course introduces the student to basic principles of weight training and the effects of this type of exercise on the body. Personalized programs will be the focus while emphasizing proper lifting techniques and safety issues.

Lecture hours: 0
Lab/Clinic hours: 32

Course Fee:

PEA191 Pilates — 1 credits
This skill course is designed to provide students with the opportunity to learn Pilates principles and mat-based exercises from the beginner level through the intermediate level, finishing with the advanced level. Pilates is a form of exercise that focuses on core stability and strength while simultaneously lengthening and strengthening the muscles without adding bulk.

Lecture hours: 32
Lab/Clinic hours:
Prior to Fall 2006 the course number was PE115T

**PEA193 Resist-A-Ball — 1 credits**
This aerobic activity course introduces the fundamentals of Resist-A-Ball usage. The physical benefits associated with Resist-A-Ball include, but are not likely to be limited to, increased strength, flexibility, and body awareness. The ball will also be used for meditative-type activities. Students will learn proper form and technique when performing any and all exercises using the Resist-A-Ball essential to their individual safety.

Lecture hours: 0  
Lab/Clinic hours: 32  

Course Fee:

Prior to Fall 2006 the course number was PE116T

**PEA194 Vinyasa Yoga — 1 credits**
This skill course introduces the fundamentals of Vinyasa Yoga. Vinyasa Yoga focuses on balanced asana (posture) sequences, as well as the connection of the asanas and the breath. There are a host of associated benefits including, but not limited to, increased levels of body awareness, increased strength and flexibility as well as the benefits shown to be associated with relaxation.

Lecture hours: 0  
Lab/Clinic hours: 32  

Course Fee:

Prior to Fall 2006 the course number was PE117T

**PEA196 Iron Yoga-Pilates Infusion — 1 credits**
This skills course provides students with an opportunity to contrast and compare yoga and pilates, and use a host of equipment to compliment both. Emphasis will be placed on muscular strength and endurance, flexibility, physical balance, and mind control.

Lecture hours: 0  
Lab/Clinic hours: 32  

Course Fee:

**PEA287 Weight Training II — 1 credits**
This skill course emphasizes the importance of variation in the weight training regimen by incorporating different training systems.

Lecture hours: 0  
Lab/Clinic hours: 32  

Prerequisite(s): Completion of PEA187  

Course Fee:

**PEC110 Coaching Ethics, Techniques and Theory — 1 credits**
This is one of the four courses required to receive a coaching authorization or endorsement. This course meets the required hours for ethics. By the end of the course participants should be able to explain methodology and responsibilities of a successful coach, apply teaching techniques to sports skills, connect how communication and motivation affect performance, and distinguish appropriate ethical behavior of coaches and students. Taking responsibility for their own learning, participants should be able to plan for an effective and meaningful experience for the athlete that is supported by informed decision-making.

Lecture hours: 16  
Lab/Clinic hours:
**PEC115 Athletic Development and Human Growth — 1 credits**
This is one of the four courses required to receive a coaching authorization or endorsement. This course will connect the participants to the basic concepts of growth and development of students in the 5th through 12th grade who would participate in school sponsored athletics. By the end of this course, participants should be able to explain how and when physical, social, emotional, and intellectual development occurs and how this development affects learning, behavior, and performance. Taking responsibility for their own learning, participants should be able to plan for an effective and meaningful athletic experience for the adolescent that is supported by informed decision-making.

Lecture hours: 16
Lab/Clinic hours: 0

**Course Fee:**

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**PEC123 Anatomy for Coaching — 1 credits**
This is one of the four courses required to receive a coaching authorization or endorsement. By the end of this course, participants should be able to apply basic physiological concepts to athletics, connect how they affect movement, conditioning, and performance. Taking responsibility for their own learning, participants should be able to plan for an effective and meaningful experience for the athlete that is supported by informed decision-making.

Lecture hours: 16
Lab/Clinic hours: 0

**Course Fee:**

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**PEC127 Care and Prevention of Athletic Injuries — 2 credits**
This is one of the four courses required to receive a coaching authorization or endorsement. This course will describe the duties and responsibilities in protecting the health of athletes. The course is aimed at recognizing injuries and providing basic care for those injuries as well as techniques to prevent injuries from occurring.

Lecture hours: 32
Lab/Clinic hours: 0

**Course Fee:**

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**PEH110 Personal Wellness — 2 credits**
This is an introductory level course designed to expose students to a wide array of physical fitness activities as well as nutritional factors, health risk factors, and stress reduction techniques. The focus of this course is to explore wellness in holistic terms, not just in physical fitness terms.

Lecture hours: 32
Lab/Clinic hours: 0

**Course Fee:**

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Prior to Fall 2006 the course number was PE100T

**PEH111 Personal Wellness — 3 credits**
This is an introductory level course designed to explore wellness in all dimensions. Students will assess their overall level of wellness, assess current lifestyle choices, and be enabled with strategies that will lead to an improved lifestyle and overall level of wellness.

Lecture hours: 48
Lab/Clinic hours: 0

**Course Fee:**
**PEH141 First Aid — 2 credits**
This course will use discussion and application to provide the layperson with the basic skills and knowledge necessary to provide First Aid, CPR, and AED to adult, child, and infant populations. Certification by the American Red Cross will be awarded to those who qualify.

Lecture hours: 32
Lab/Clinic hours:

Course Fee: $30.00

**PEH266 Leadership Techniques for Fitness Programs — 3 credits**
This course will prepare students to develop and implement an individualized and group approach to exercise leadership in healthy populations. The student will also become proficient in writing, leading, and demonstrating safe and effective methods of exercise by applying the fundamental principles of exercise science.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

**PHI101 Introduction to Philosophy — 3 credits**
This course is an investigation of some of the fundamental problems of human existence—human nature, the nature of reality, how and what we know, the existence of God, ethical behavior, justice, and freedom. This will be undertaken through readings and discussions of major philosophical schools of thought in Western and non-Western traditions.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was PR101T, PR190T

**PHI105 Introduction to Ethics — 3 credits**
This course examines contemporary ethical conflicts and provides a grounding in the language, concepts, and traditions of ethics. This course provides students with the intellectual tools to analyze moral dilemmas in the fields they choose to pursue and participate in as members of society.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was PR110T

**PHI121 Classical/Medieval Philosophy — 3 credits**
This course will cover an intellectual history of Western civilization from the pre-Socratic philosophers through Scholasticism. The course will begin by looking at several philosophers preceding Socrates, as well as study Socrates, Plato, Aristotle, and the impact of Greek philosophy. It will then look at the development of early Christianity through Augustine, the early Medieval period through Thomas Aquinas, and the late medieval period through William of Occam.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

**PHS120 Exploring Physical Science — 4 credits**
This course introduces the student to the concepts and processes of physics, chemistry, astronomy, and earth
science. Students are presented with a general overview of theories that have an impact on their everyday lives.

Lecture hours: 48
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of D- in a 100 level math course or appropriate placement scores (ACT: 24 or COMPASS Algebra: 66-100), a minimum grade of D- in RDG040 College Preparatory Reading III or appropriate placement scores (COMPASS Reading: 82 or above), and a minimum grade of D- in ENG105 Composition I or COM781 Written Communication in the Workplace.

Course Fee:

Prior to Fall 2006 the course number was PS112T

**PHS142 Principles of Astronomy — 3 credits**

This physical science course 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.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): A minimum grade of D- in a 100 level math course or appropriate placement scores (ACT: 24 or COMPASS Algebra: 66-100), a minimum grade of D- in RDG040 College Preparatory Reading III or appropriate placement scores (COMPASS Reading: 82 or above), and a minimum grade of D- in ENG105 Composition I or COM781 Written Communication in the Workplace.

Course Fee:

Prior to Fall 2006 the course number was PS115T, PS190T

**PHS152 Astronomy — 4 credits**

A basic course in descriptive astronomy dealing with the development of modern astronomy and with its present-day theories and observations. Topics covered include motions of solar system and deep sky objects, telescopes and other instruments, members of the solar system, nature of the sun, other stars, origin and development of stars and planets, our galaxy, other galaxies, and the organization of the universe.

Lecture hours: 48
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of D- in a 100 level math course or appropriate placement scores (ACT: 24 or COMPASS Algebra: 66-100), a minimum grade of D- in RDG040 College Preparatory Reading III or appropriate placement scores (COMPASS Reading: 82 or above), and a minimum grade of D- in ENG105 Composition I or COM781 Written Communication in the Workplace.

Course Fee:

**PHS928 Independent Study — 1 credits**

This course provides opportunity for a student to focus previous course work and knowledge on a special issue as well as provide for individualized exploration of topics pertinent to the student's projected objectives within any recognized discipline. Faculty consultation is required. prior to registration for this course

Lecture hours: 0
Lab/Clinic hours:

Course Fee:

**PHT102 Photo Design I — 3 credits**

This course identifies the fundamental design and compositional elements contained in quality images used for
professional photography. The course provides exposure to several photographic styles which can be drawn upon for each individual's photographic journeys.

Lecture hours: 32  
Lab/Clinic hours: 48

Course Fee:

Prior to Fall 2006 the course number was PO102U

**PHT106 Introduction to Image Editing — 3 credits**
This course identifies the fundamental design and compositional elements contained in quality images used for professional photography. The course provides exposure to several photographic styles which can be drawn upon for each individual's photographic journeys.

Lecture hours: 32  
Lab/Clinic hours: 32

Course Fee: $40.00

Prior to Fall 2006 the course number was PO106U

**PHT108 Camera I — 3 credits**
This course is an introduction to the basics of camera handling, exposure, and meter usage.

Lecture hours: 32  
Lab/Clinic hours: 48

Co-requisite(s): PHT109 Print I

Course Fee:

**PHT109 Print I — 3 credits**
This course is an introduction to the basics of processing camera outputs and applying techniques used to produce a professional print. This course also emphasizes the fundamental print finishing methods used in the professional photography industry to enhance a photograph's overall presentation.

Lecture hours: 32  
Lab/Clinic hours: 32

Prerequisite(s): PHT108 Camera I

Co-requisite(s): PHT108 Camera I

Course Fee:

**PHT110 Camera II — 3 credits**
This course is an extension of Camera I and expands on camera captures, introducing editing workflows and image conversions. Additional camera accessories and optical image management are explained along with common problems with optics and what can be done to correct for them.

Lecture hours: 32  
Lab/Clinic hours: 48

Prerequisite(s): PHT108 Camera I

Course Fee:

**PHT111 Print II — 3 credits**
This course emphasizes color output and the need for a properly managed original image, and properly managed output devices that result in either physical prints or virtual presentations.
Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): PHT109 Print I and PHT106 Introduction to Image Editing
PHT202 Basic Portraiture or PHT204 Basic Commercial Photography

Co-requisite(s): PHT202 Basic Portraiture or PHT204 Basic Commercial Photography

Course Fee:

**PHT132 Photo Design II — 3 credits**
This course presents the physical, physiological, and psychological dimensions of color and light as perceived by people. The interaction of colors is explored as it relates to studying the forms of color, color harmonies, and color contrasts.

Lecture hours: 32
Lab/Clinic hours: 48

Prerequisite(s): PHT102 Photo Design I

Course Fee:

Prior to Fall 2006 the course number was PO132U

**PHT202 Basic Portraiture — 3 credits**
This course presents an introduction and an overview of the professional portrait field. The course will introduce management techniques used in portrait studios. The course will include instruction on studio equipment and utilizing natural light and studio lighting to produce acceptable portraits.

Lecture hours: 32
Lab/Clinic hours: 48

Prerequisite(s): PHT106 Introduction to Image Editing and PHT108 Camera I and PHT109 Print I

Course Fee: $70.00

Prior to Fall 2006 the course number was PO202U

**PHT204 Basic Commercial Photography — 3 credits**
This course presents an overview of a profession in commercial still photography. Techniques, assignment types, expectations, working conditions, types of photography products used, studio procedures and equipment requirements will be discussed. Simple commercial techniques will be applied in practical assignments.

Lecture hours: 32
Lab/Clinic hours: 48

Prerequisite(s): PHT 106 Introduction to Image Editing and PHT 108 Camera I and PHT 109 Print I

Course Fee:

Prior to Fall 2006 the course number was PO204U

**PHT208 Basic Photojournalism — 3 credits**
This survey of photojournalism as a profession leads to publishable photographs through practical assignments. The techniques and working style of outstanding photojournalists are presented in multi-image programs.

Lecture hours: 32
Lab/Clinic hours: 48
Prior to Fall 2006 the course number was PO208U

**PHT210 Visual Communication — 3 credits**
This course is a survey of the tools, materials and processes used for the production of visual messages in society. Course work includes practical application in the selection, utilization and implementation of materials in the preparation and design of messages.

Lecture hours: 32
Lab/Clinic hours: 48

Course Fee:

Prior to Fall 2006 the course number was PO210U

**PHT215 Portrait Image Editing — 3 credits**
This course will deal with adjusting and enhancing images after capture and before final output using computer imaging software. Emphasis will be on images used in the portrait photography industry.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): PHT106 Introduction to Image Editing

Course Fee:

**PHT216 Commercial Image Editing — 3 credits**
This course will deal with adjusting and enhancing images after capture and before final output using computer imaging software. Emphasis will be on images used in the commercial photography industry.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): PHT106 Introduction to Image Editing and PHT111 Print II

Course Fee:

**PHT217 Advanced Portrait Image Editing — 3 credits**
This course will deal with multiple images in portrait production giving a series of images that will be used together in an album or multi-image presentation a consistent look, or insuring a series of images that will be combined into a composite image will have appropriate balance.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): PHT215 Portrait Image Editing

Course Fee:

**PHT218 Advanced Commercial Image Editing — 3 credits**
This course will deal with multiple images in commercial production; giving a series of images that will be used together in a catalog or brochure a consistent look, or insuring a series of images that will be combined into a composite image will have appropriate balance.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): PHT216 Commercial Image Editing

Course Fee:
**PHT220 Intermediate Portraiture — 3 credits**
This course is designed to assist the student in learning advanced portrait techniques and the business tools needed to start and maintain a portrait studio. The course creates an awareness of the work environment the student will enter. This course builds on the skills learned in Basic Portraiture and will include portrait assignments incorporating the criteria for acceptable portraits while utilizing studio lighting and natural lighting.

Lecture hours: 32
Lab/Clinic hours: 48

Prerequisite(s): PHT202 Basic Portraiture

Course Fee: $45.00

**PHT227 Intermediate Commercial — 3 credits**
This course builds on the theory and techniques learned in Basic Commercial Photography. Lighting and image control will be presented in a variety of situations both in the studio and on location.

Lecture hours: 32
Lab/Clinic hours: 48

Prerequisite(s): PHT204 Basic Commercial Photography

Course Fee:

**PHT229 Intermediate Photojournalism — 3 credits**
This course prepares students to find employment with various publications and media outlets including newspapers, magazines, public relations departments and internet outlets. Portfolio presentation is required upon completion.

Lecture hours: 32
Lab/Clinic hours: 48

Prerequisite(s): A minimum grade of "C" in PHT208 Basic Photojournalism

Course Fee:

**PHT235 Techniques for Studio Promotion — 3 credits**
This course emphasizes fundamental promotional methods used in professional portrait photography studios and provides exposure to the various advertising and marketing strategies to promote the studio and raise public awareness.

Lecture hours: 32
Lab/Clinic hours: 48

Prerequisite(s): A minimum grade of D- in PHT202 Basic Portraiture or PHT204 Basic Commercial Photography.

Course Fee:

Prior to Fall 2006 the course number was PO235U

**PHT237 History of Photography — 2 credits**
This course introduces the student to the history of the photographic profession and it's ascent to the modern art form we know today. The people, processes, and their contribution to society throughout photography's short history will be discussed and studied.

Lecture hours: 32
Lab/Clinic hours:

Course Fee:
Prior to Fall 2006 the course number was PO237U

**PHT240 Portrait Production and Portfolio — 3 credits**
This course is designed to assist the student in learning production portrait techniques and the customer services needed to start and maintain a portrait studio. The course creates an awareness of the work environment. This course builds on the skills learned in Intermediate Portraiture and will include various portrait assignments in the studio, outdoors, and on location. A portfolio presentation is required upon completion.

Lecture hours: 32  
Lab/Clinic hours: 48

Prerequisite(s): PHT220 Intermediate Portraiture

Course Fee: $80.00

**PHT241 Portrait Business — 3 credits**
This course overviews the day to day operations specific to a portrait photography business, including business structure, cost of doing business, invoicing, staffing, and business taxes.

Lecture hours: 32  
Lab/Clinic hours: 48

Prerequisite(s): A minimum grade of D in PHT202 Basic Portraiture.

Co-requisite(s): PHT240 Portrait Production and Portfolio

Course Fee:

**PHT242 Audio Visual Presentations — 3 credits**
This course introduces the student to the aspects of planning, producing, distributing, and presenting computer based multimedia. Macintosh and PC computer platforms will be utilized to complete assignments. Students will integrate digital photography and digital audio to produce assignments.

Lecture hours: 32  
Lab/Clinic hours: 48

Course Fee:

Prior to Fall 2006 the course number was PO242U

**PHT244 Wedding Photography — 4 credits**
This course presents an overview of the professional wedding field. The course will include instruction on equipment, lighting, and posing utilized for photographing a wedding. The course will also cover marketing, sales techniques, and the day-to-day business procedures needed to operate a wedding business.

Lecture hours: 32  
Lab/Clinic hours: 64

Prerequisite(s): PHT220 Intermediate Portraiture

Course Fee:

Prior to Fall 2006 the course number was PO244U

**PHT247 Commercial Production and Portfolio — 3 credits**
This course will look at a number of challenging situations likely to be encountered by commercial photographers, including ones that require advanced lighting solutions, large teams of people, or extensive planning and preparation. This course analyzes a variety of photographic styles and considers the importance of developing a personal photographic style. Students will be required to produce and present a portfolio of their commercial images.
Lecture hours: 32
Lab/Clinic hours: 48

Prerequisite(s): PHT227 Intermediate Commercial

Course Fee:

**PHT248 Commercial Business — 3 credits**
This course overviews the day to day operations specific to a commercial photography business, including business structure, cost of doing business, invoicing, staffing, and business taxes.

Lecture hours: 32
Lab/Clinic hours: 48

Prerequisite(s): A minimum grade of D in PHT204 Basic Commercial Photography.

Course Fee:

**PHT251 Fine Art Photography — 3 credits**
This course will present an overview of the Fine Art Photography field. Outlets will be identified for selling personal fine art photography. The course will also include instruction on how to apply to shows and give direction on how to present, display, and sell fine art photography.

Lecture hours: 32
Lab/Clinic hours: 48

Prerequisite(s): PHT111 Print II

Course Fee:

**PHT252 Film and Print Scanning — 3 credits**
This course will study the conversion from analog film and prints into a digital format that can be used within electronic image editing and output.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): PHT215 Portrait Image Editing or PHT216 Commercial Image Editing

Course Fee:

**PHT253 Art Direction — 3 credits**
This course will provide an overview of the working relationship between the photographer and the art director, as well as explore skills needed for good communication and collaboration.

Lecture hours: 32
Lab/Clinic hours: 48

Prerequisite(s): PHT247 Comm Production and Portfolio

Course Fee:

**PHT928 Photography Independent Study — 1 credits**
This course provides opportunity for a student to focus previous course work and knowledge on a special issue as well as provide for individualized exploration of topics pertinent to the student's projected objectives within any recognized discipline. Faculty consultation is required prior to registration for this course. Students can earn one to five credits.

Lecture hours: 0
Lab/Clinic hours: 48
**PHY162 College Physics I — 4 credits**
This course covers the fundamental concepts, principles and laws of physics and their applications. It covers kinematics, dynamics, force, linear and rotational motion, fluids, sound, temperature, and heat.

Lecture hours: 48
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of C- in MAT747 Technical Math II, MAT128 Precalculus, or MAT134 Trigonometry and Analytic Geometry, or a COMPASS score sufficient to enroll in MAT210.

Course Fee:
Prior to Fall 2006 the course number was PH110T

**PHY172 College Physics II — 4 credits**
This course is the second semester continuation of General Physics I. The course studies the fundamental concepts, principles and laws of physics and their application. It covers electricity and magnetism, light and geometric optics, quantum and nuclear physics.

Lecture hours: 48
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of C- in PHY162 College Physics I.

Course Fee:
Prior to Fall 2006 the course number was PH111T

**PHY183 Applied Physics — 3 credits**
This course is an introduction to topics of classical physics such as motion, friction, gravitation, vibrational motion, thermodynamics, sound, light, and optics.

Lecture hours: 32
Lab/Clinic hours: 48

Prerequisite(s): MAT514 Electronics Math II

Course Fee:
Prior to Fall 2006 the course number was PH108U

**PHY212 Classical Physics I — 5 credits**
This course introduces physics using calculus-level mathematics. Designed for students in Engineering, Mathematics, and Physics. The first semester of this sequence covers the topics of vectors, linear and rotational kinematics, statics, dynamics, oscillatory and wave motion, temperature, and heat.

Lecture hours: 64
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of C- in MAT210 Calculus I.

Course Fee:
Prior to Fall 2006 the course number was PH112T

**PHY222 Classical Physics II — 5 credits**
This course is the second semester continuation of Classical Physics I. This is a calculus-based course that studies the fundamental concepts, principles and laws of physics, and their applications. Topics include: electricity and magnetism, light and geometric optics, quantum and nuclear physics.
Lecture hours: 64  
Lab/Clinic hours: 32  
Prerequisite(s): A minimum grade of C- in PHY212 Classical Physics I and MAT216 Calculus II.

Course Fee:  
Prior to Fall 2006 the course number was PH113T

PNN100 Nursing Assistant — 3 credits
This course is designed to meet the training requirements of the Omnibus Reconciliation Act of 1987 (OBRA) for aides working in nursing facilities (NF) and skilled nursing facilities (SNF). Emphasis in the course is on students achieving a basic level of knowledge and demonstrating skills to provide safe, effective resident/client care. This course parallels PNN-132 Nursing Fundamentals I.

Lecture hours: 32  
Lab/Clinic hours: 48  
Course Fee: $75.00  
Prior to Fall 2006 the course number was PN103U

PNN102 Introduction to Health Careers — 3 credits  
This introductory course is designed to provide the student with an exploration of a variety of health careers/professions, some basic health care principles and skills, and certification in CPR, First Aid, Mandatory Reporter Training for Child and Dependent Adult Abuse, and Blood Borne Pathogen Training.

Lecture hours: 32  
Lab/Clinic hours: 32  
Course Fee:  
Prior to Fall 2006 the course number was GT103U

PNN103 Nursing Calculations — 2 credits
This course is designed to present mathematics necessary to convert between the American, metric, and apothecary systems of measurement using ratio-proportion and dimensional analysis methods. The course also includes intake and output calculations, percentages of change with weights, calories and fluids, calculating feeding solutions, drug dosage calculations, and determining IV flow rates.

Lecture hours: 32  
Lab/Clinic hours:  
Prerequisite(s): MAT063 Elementary Algebra, or MAT110 Math for Liberal Arts, or MAT156 Statistics  
Other Requirements: Admitted to current semester of Practical Nursing Program  
Course Fee:  
Prior to Fall 2006 the course number was PN109U

PNN132 Nursing Fundamentals I — 3 credits
This course presents and offers supervised practice of basic skills, principles and procedures, therapeutic care and measures, and observing and meeting client needs through application of the nursing process in a laboratory setting. The student is assisted in gaining skill and accuracy through demonstration, supervised practice, and evaluation. This course parallels the state approved Nurse Aide I credit course.

Lecture hours: 32  
Lab/Clinic hours: 32  
Prerequisite(s): BIO159 Fundamentals of Anatomy & Physiology
Other Requirements: Admitted to current semester Practical Nursing Program

Course Fee: $42.00

Prior to Fall 2006 the course number was PN107U

**PNN133 Nursing Fundamentals II — 3 credits**
This course is a continuation of PNN-132 Nursing Fundamentals I or the state approved Nurse Aide I credit course. This course presents and offers supervised practice of basic nursing skills, principles and procedures, therapeutic care and measures, and observing and meeting clients’ needs through application of the nursing process in a laboratory setting. The student is assisted in gaining skill and accuracy through demonstration, supervised practice, and evaluation.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): PNN132 Nursing Fundamentals I or PNN100 Nursing Assistant with certification

Course Fee:

Prior to Fall 2006 the course number was PN108U

**PNN161 Introduction to Client Care — 1 credits**
This course provides students with an introduction to clinical nursing. Emphasis is placed on utilization of the nursing process for the geriatric client in the long-term care facility. This course begins the three year time limit for completion of the LPN curriculum.

Lecture hours: 0
Lab/Clinic hours: 48

Prerequisite(s): PNN132 Nursing Fundamentals I or PNN100 Nursing Assistant with certification, PNN133 Nursing Fundamentals II, PNN103 Nursing Calculations

Course Fee: $596.00

Prior to Fall 2006 the course number was PN105U

**PNN270 Introduction to Nutrition — 2 credits**
This course evaluates attitudes and helps develop understanding and the skills necessary to good basic nutrition at the personal level and with clinical application throughout the lifespan. It includes a study of the components and functions of food, preservation of nutrients, and principles of digestion.

Lecture hours: 32
Lab/Clinic hours:

Prerequisite(s): ENG061 College Preparatory Writing II, MAT063 Elementary Algebra, SDV025 College Study Skills, BIO041 Pre-Technical Biology

Other Requirements: Completion of Practical Nursing admission requirements.

Course Fee:

Prior to Fall 2006 the course number was PN104U

**PNN311 PN Issues and Trends — 1 credits**
This course is an overview of the role of the licensed practical nurse in Iowa. This course introduces students to the history, educational preparation, legal and ethical requirements, and cultural and spiritual sensitivity. Levels of practice, career opportunities, and beginning the job search are addressed.

Lecture hours: 16
Lab/Clinic hours:
Prerequisite(s): PNN270 Introduction to Nutrition, PNN161 Introduction to Client Care, PNN132 Nursing Fundamentals I, PNN133 Nursing Fundamentals II, PNN103 Nursing Calculations, BIO159 Fundamentals of Anatomy & Physiology, PSY111 Introduction to Psychology

Other Requirements: Completion of all first semester Practical Nursing courses with a C or higher.

Course Fee:

Prior to Fall 2006 the course number was PN201U

**PNN343 Nursing Perspectives Through the Lifespan — 3 credits**

This course is a study of the stages of normal growth and development including physical, behavioral, and personality development from conception to death. Special emphasis is placed on phases and processes of aging.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): ENG061 College Preparatory Writing II, MAT063 Elementary Algebra, SDV025 College Study Skills, BIO041 Pre-Technical Biology

Other Requirements: Completion of Practical Nursing admission requirements.

Course Fee:

Prior to Fall 2006 the course number was PN131U

**PNN401 Mental Health Nursing — 1 credits**

This course focuses on the beginning study of mental health concepts utilizing the nursing process. Self-awareness and providing a therapeutic relationship are important aspects of this course. Emphasis is also placed on nursing interventions provided to meet the emotional needs of the client, especially the elderly.

Lecture hours: 16
Lab/Clinic hours:

Prerequisite(s): ENG061 College Preparatory Writing II, MAT063 Elementary Algebra, SDV025 College Study Skills, BIO041 Pre-Technical Biology

Other Requirements: Completion of all first semester Practical Nursing courses with a C or higher.

Course Fee: $70.00

Prior to Fall 2006 the course number was PN200U

**PNN431 Maternal Child Nursing I — 2 credits**

This course is designed to provide the student with an understanding of basic nursing care during pregnancy, labor, delivery, and postpartum periods. Health promotion of infants, children and adolescents is addressed. Basic nursing care essential in caring for the child hospitalized with a common illness or surgical procedure is presented.

Lecture hours: 32
Lab/Clinic hours:

Prerequisite(s): A minimum grade of C in PSY111 Introduction to Psychology, PNN270 Introduction to Nutrition, PNN161 Introduction to Client Care, PNN132 Nursing Fundamentals I, PNN133 Nursing Fundamentals II, PNN103 Nursing Calculations, and BIO159 Fundamentals of Anatomy and Physiology or BIO168 Human Anatomy and Physiology I and BIO173 Human Anatomy and Physiology II.

Co-requisite(s): A minimum grade of C in PNN343 Nurse Perspectives Through the Lifespan.
**PNN541 Medical Surgical Nursing A — 5 credits**
This course is a study of nursing care of adult clients with medical-surgical alterations of the following systems: musculoskeletal, neurological, respiratory, endocrine, immune, and eye/ear. Clinical experiences are provided in acute care facilities. Pharmacology and gerontological considerations are integrated throughout this course.

Lecture hours: 48
Lab/Clinic hours: 96

Prerequisite(s): PNN270 Introduction to Nutrition, PNN161 Introduction to Client Care, PNN132 Nursing Fundamentals I, PNN133 Nursing Fundamentals II, PNN103 Nursing Calculations, BIO159 Fundamentals of Anatomy & Physiology, PSY111 Introduction to Psychology

Other Requirements: Completion of all first semester Practical Nursing courses with a C or higher.

Course Fee:

Prior to Fall 2006 the course number was PN134U

**PNN542 Medical Surgical Nursing B — 5 credits**
This course is a study of nursing care of adult clients with medical-surgical alterations of the following systems: cardiovascular, hematology, gastrointestinal, urinary, reproductive, and integumentary. Clinical experiences are provided in acute care facilities. Pharmacology and gerontological considerations are integrated throughout this course.

Lecture hours: 48
Lab/Clinic hours: 96

Prerequisite(s): PNN270 Introduction to Nutrition, PNN161 Introduction to Client Care, PNN132 Nursing Fundamentals I, PNN133 Nursing Fundamentals II, PNN103 Nursing Calculations, BIO159 Fundamentals of Anatomy & Physiology, PSY111 Introduction to Psychology

Other Requirements: Completion of all first semester Practical Nursing courses with a C or higher.

Course Fee:

Prior to Fall 2006 the course number was PN135U

**PNN543 Foundations of Clinical Practices — 3 credits**
This course is an introduction to the general concepts that are applicable to nursing in a variety of settings. Areas of focus include nursing assessment, pharmacology, health care agencies, community resources, regulatory responses, the client with cancer, and additional clinical skills.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): PNN270 Introduction to Nutrition, PNN161 Introduction to Client Care, PNN132 Nursing Fundamentals I, PNN133 Nursing Fundamentals II, PNN103 Nursing Calculations, BIO159 Fundamentals of Anatomy & Physiology, PSY111 Introduction to Psychology

Other Requirements: Completion of all first semester Practical Nursing courses with a C or higher.

Course Fee:

Prior to Fall 2006 the course number was PN133U

**PNN722 Fundamentals of Nursing Clinical — 2 credits**
Focuses on the application of knowledge, psychomotor, and affective skills to perform the role of provider of care. Emphasis is on making basic observations and performing nursing cares associated with activities of daily living in long-term care and medical settings. Concepts related to nutrition, pharmacology, and
pathophysiology are applied.

Lecture hours: 0
Lab/Clinic hours:

Prerequisite(s): A minimum grade of C in PSY111 Introduction to Psychology, PNN270 Introduction to Nutrition, PNN161 Introduction to Client Care, PNN132 Nursing Fundamentals I, PNN133 Nursing Fundamentals II, PNN103 Nursing Calculations, and BIO159 Fundamentals of Anatomy and Physiology or BIO168 Human Anatomy and Physiology I and BIO173 Human Anatomy and Physiology II.

Course Fee:

**POL111 American National Government — 3 credits**
This course is a study of the United States national government, specifically its institutions, the process of governing, the means by which individual citizens and groups influence that process, and the output of that governing process.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was SS152T, SS193T

**POL121 International Relations — 3 credits**
This course is an introduction to international politics. The course will examine the underlying forces that shape and constrain how countries behave in the international system, historical patterns of state behavior, and the prospect of state cooperation and conflict in the future. Analysis of international relations will be done through the examination of historical events, current events, policy evaluation, and scholarly theory.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was SS151T

**POL125 Comparative Government and Politics — 3 credits**
This course introduces the study of politics using a comparative structure. It examines the principles and operation of modern political systems. Emphasis is on the processes in a variety of political systems in the world including democratic, socialist, and totalitarian systems.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was SS154T

**PSY102 Human and Work Relations — 3 credits**
This course studies self and social behavior. Emphasis is placed on the understanding and application of social science theories and research for the development of effective interpersonal and organizational relationships.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was HR101U
PSY111 Introduction to Psychology — 3 credits
This course provides an introduction to the study of behavior with emphasis in the areas of learning, cognition, motivation, personality, behavioral disorder, therapy, and social influence. An understanding of the impact of both theoretical perspectives and experimental evidence on the formulation of the science of human behavior is also stressed. Psychological theories and principles are utilized to explain and predict behavior.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:
Prior to Fall 2006 the course number was PY100T, PY190T

PSY121 Developmental Psychology — 3 credits
This course presents a life span, developmental approach to the study of the developing person that identifies the behavioral dynamics of the physical, cognitive, social, and affective domains of development with a view to the impact of family, school, and community.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:
Prior to Fall 2006 the course number was PY105T

PSY241 Abnormal Psychology — 3 credits
This course is a survey of the major classifications of psychological disorders. Emphasis will be on theoretical perspectives, descriptions of disorders, and therapeutic approaches.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): PSY111 Introduction to Psychology

Course Fee:
Prior to Fall 2006 the course number was PY201T, PY191T

PSY251 Social Psychology — 3 credits
This course provides an introduction to the study of the interrelationship between the individual and social behavior with emphasis in the areas of social cognition, attribution, attitudes, group behavior, prejudice and discrimination, and interpersonal relationships. Basic psychological and sociological perspectives and research findings will be reviewed to better understand individual and social behavior.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): PSY111 Introduction to Psychology; SOC110 Introduction to Sociology, or instructor consent.

Course Fee:
Prior to Fall 2006 the course number was PY118T

PSY261 Human Sexuality — 3 credits
This course explores the biological, psychological, social, cultural, and historical forces that influence human relationships and sexuality. Research and theory are utilized to examine the diversity of human sexual expression.

Lecture hours: 48
Lab/Clinic hours:
Prior to Fall 2006 the course number was SS160T

**PSY262 Psychology of Gender — 3 credits**
This course explores the meaning of gender. Research and theory in the areas of gender development, gender similarities and differences, and the nature and effects of gender roles and stereotypes is emphasized.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): PSY111 Introduction to Psychology

Prior to Fall 2006 the course number was PY116T

**PSY924 Honors Project — 1 credits**
This course involves in-depth independent research on an approved topic under supervision of a faculty member. Upon project's completion, results will be shared with community of peers and faculty. Up to 3 credits may be earned for this course.

Lecture hours: 0
Lab/Clinic hours: 16

**PSY926 Honors Seminar — 3 credits**
Honors seminar in a topic selected by faculty member. The topic would change from semester to semester, coming from the faculty member's area of interest and may also include topics from the Phi Theta Kappa national honors topics.

Lecture hours: 0
Lab/Clinic hours:

Prior to Fall 2006 the course number was PTA101

**PTA101 Introduction to PTA — 2 credits**
This course provides an introduction to the role of a physical therapist assistant in the health care delivery system. History and organization of the physical therapy profession, standards of practice, laws and regulations, the interdisciplinary health care team, ethics, and accessing research/health care literature will be covered.

Lecture hours: 32
Lab/Clinic hours:

Prerequisite(s): Acceptance into Phase II of the Physical Therapist Assistant program.

**PTA110 Fundamentals for PTA — 3 credits**
An introduction to the skills needed to care for patients in varied settings. This course will include body measurements, range of motion, vital signs, lifting and transfers, draping and positioning, documentation guidelines, manual muscle testing, posture and body alignment, assistive devices, and the pre-ambulatory patient.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): Acceptance into Phase II of the Physical Therapist Assistant program.
PTA113 Fundamentals for PTA II — 3 credits
Introduction to physical disabilities and community barriers, independent activities of daily living, prosthetics, orthotics, static/dynamic splints, casts, braces, relaxation training, pulmonary function, airway clearance techniques, breathing exercises, functional assessment, functional exercise, balance assessment, and balance training.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of C in PTA110 Fundamentals for PTA.

Course Fee:

PTA120 Kinesiology — 3 credits
This course will present advanced anatomy of the musculoskeletal system with emphasis on joint mechanics, human movement, and palpation of anatomical landmarks. The student will learn the principles of normal and abnormal gait.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): Acceptance into Phase II of the Physical Therapist Assistant program.

Course Fee:

PTA150 Pathophysiology — 3 credits
Describes the etiology, signs, symptoms, and treatment of diseases and disorders commonly encountered in physical therapy.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): Acceptance into Phase II of the Physical Therapist Assistant program.

Course Fee:

PTA194 Therapeutic Agents I — 3 credits
Introduction to the use of physical modalities for patient treatment. The principles of inflammation, cell repair, pain, and pain management will be introduced. The student will learn the physics, physiology, indications, contraindications, application, and patient preparation for the use of heat, cold, ultrasound, massage, vasocompression, wound care, hydrotherapy, and phonophoresis.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): Acceptance into Phase II of the Physical Therapist Assistant program.

Course Fee: $46.00

PTA195 Therapeutic Agents II — 3 credits
This course continues with the study of the physics, physiology, indications, contraindications, and patient preparation for the use of modalities. Focus will be on electrical modalities including iontophoresis, biofeedback, transcutaneous electrical stimulation (TENS), neuromuscular electrical stimulation, high volt, interferential, and microcurrent. The course will also include mechanical traction, continuous passive motion, and laser.

Lecture hours: 32
Lab/Clinic hours: 32
Prerequisite(s): A minimum grade of C in PTA194 Therapeutic Agents I.

Course Fee:

**PTA211 Musculoskeletal I — 3 credits**
This course will present the principles of tissue development, healing and response to physical therapy treatments. Common cervical spine and upper extremity orthopedic diagnosis, physical therapy interventions, and post-operative and injury care protocols will be discussed.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): Acceptance into Phase II of the Physical Therapist Assistant program.

Course Fee:

**PTA212 Musculoskeletal II — 3 credits**
This course will present common lower extremity and thoracolumbar spine orthopedic diagnosis and physical therapy interventions. Post-operative and injury care protocols will be discussed.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of C in PTA211 Musculoskeletal I.

Course Fee:

**PTA231 Therapeutic Exercise for PTA — 3 credits**
This course covers the principles of exercise physiology, the application of exercise to treatment plans and injury prevention, equipment, and exercise interventions to improve flexibility, strength, motor control, special topics in women’s health, and cardiovascular function.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of C in PTA211 Musculoskeletal I AND a minimum grade of C in PTA120 Kinesiology.

Co-requisite(s): PTA212 Musculoskeletal II

Course Fee:

**PTA248 PTA Neurology — 4 credits**
This course presents information on nervous system anatomy, function and normal/abnormal development; therapeutic approaches to central nervous system dysfunction throughout the life cycle; and assessment of the neurologically impaired patient.

Lecture hours: 48
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of C in PTA110 Fundamentals for PTA AND a minimum grade of C in PTA120 Kinesiology.

Course Fee:

**PTA285 PTA Professional Issues — 1 credits**
This seminar covers topics relevant to professional development and communication. Topics include cultural competence, learning and communication styles, ethical and legal aspects of care, structure and function of institutions, wellness, reimbursement systems, and special topics in health care. Employment topics including resume writing, interviewing, performance appraisals, and work/life issues will be covered.
Lecture hours: 16-18
Lab/Clinic hours:

Prerequisite(s): A minimum grade of C in PTA101 Introduction to PTA.

Course Fee:

PTA310 PTA Clinical I — 1 credits
This course consists of Health Care Provider level CPR and First Aid certification; HIPAA, OSHA Hazard Communication (includes blood borne pathogens), and Mandatory Reporter Training for Child and Dependent Adult Abuse; and introduction to the clinic during the first two weeks of the semester, followed by weekly on-site clinical experience in local settings. The course will allow for observation of physical therapy interventions and application of elemental principles of patient care to uncomplicated patients under direct supervision and at the discretion of the Clinical Instructor.

Lecture hours: 0
Lab/Clinic hours: 48

Prerequisite(s): Acceptance into Phase II of the Physical Therapist Assistant program.

Course Fee: $153.00

PTA311 PTA Clinical II — 1 credits
This course consists of a clinical experience starting one week prior to spring semester. The students will have the opportunity to apply skills and knowledge developed in PTA101 Introduction to PTA, PTA110 Fundamentals for PTA, PTA194 Therapeutic Agents I, PTA120 Kinesiology, PTA150 Pathophysiology, and PTA211 Musculoskeletal I per the discretion of the Clinical Instructor.

Lecture hours: 0
Lab/Clinic hours: 48

Prerequisite(s): A minimum grade of C in PTA110 Fundamentals for PTA AND a minimum grade of Pass in PTA310 PTA Clinical I.

Course Fee:

PTA415 PTA Clinical III — 5 credits
This course consists of a full-time clinical rotation at one clinical site. The student will apply skills and knowledge from all previous coursework to patient care with the purpose of developing entry-level clinical competency. Clinical competencies will be continued. An oral presentation will be presented to the staff. The clinical site may require travel away from the local region, including out-of-state.

CO-OP Hours: 320

Lecture hours: 0
Lab/Clinic hours:
Co-op Hours: 320

Prerequisite(s): A minimum grade of C in all of the following courses: PTA113 Fundamentals for PTA II, PTA195 Therapeutic Agents II, PTA212 Musculoskeletal II, PTA231 Therapeutic Exercise for PTA, PTA248 PTA Neurology, and PTA285 PTA Professional Issues.

Course Fee: $39.00

PTA416 PTA Clinical IV — 5 credits
This course consists of a full-time clinical rotation at one clinical site. The student will continue to apply skills and knowledge obtained from all previous coursework and clinical experiences. Clinical competencies must be completed by the end of this rotation. An oral presentation will be presented to the staff that differs from Clinical III. A one day review of clinical questions and licensure exam details will follow the end of the clinical.
Location of clinical sites may require travel away from the local region, including out-of-state.
RCP100 Introduction to Respiratory Care — 3 credits
This course introduces the student to the fundamentals of Respiratory Care. The field of Respiratory Care will be examined to determine opportunities and policies in the profession. It will establish a strong foundation in bedside assessment including vital signs, chest assessment, evaluating work of breathing, and patient history. Also covered will be the therapeutic uses of medical gases, infection control procedures, and proper maintenance of records. Humidity and aerosol therapy will be studied in detail.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): Must complete all Pre-Respiratory courses with a cumulative GPA of 2.75.

Course Fee: $145.00

Prior to Fall 2006 the course number was RT104U

RCP260 Airway Maintenance Procedures — 4 credits
This course will develop the skills required to assess, diagnose, and manage a patient's airway. It specifically describes the Respiratory Therapist's role in maintaining a patent airway by using lung expansion therapy, bronchial hygiene techniques, and suctioning. The insertion, maintenance, and removal of artificial airways, which include endotracheal tubes and tracheostomy tubes, will be discussed in detail.

Lecture hours: 48
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was RT137U

RCP315 Cardiopulmonary Therapeutics — 4 credits
This course is a detailed study of the respiratory, circulatory, and renal systems as they apply to respiratory care. The procedure and analysis of arterial blood gas sampling will be discussed in detail along with the pharmacologic interventions used to ease the work of breathing. This course provides a foundation for the study of respiratory and cardiovascular disorders and the interventions made to alleviate them.

Lecture hours: 48
Lab/Clinic hours: 32

Course Fee:

RCP350 Pulmonary Pathology — 3 credits
This course includes principles of pathology and how the cardiopulmonary system is affected by various disease processes from prenatal life through old age. This includes the effects of inflammatory processes, immunological processes, neoplastic processes, and the effects of lifestyle on the body.

Lecture hours: 0
Lab/Clinic hours: 48

Course Fee: $75.00

Prior to Fall 2006 the course number was RT230U
RCP410 Cardiopulmonary Diagnostics — 3 credits
This course covers advanced cardiopulmonary diagnostic tests. It includes pulmonary function tests, stress tests, imaging studies, noninvasive monitors, bronchoscopies, cardioversions, polysomnography, indwelling lines, and pulmonary rehabilitation. Ethical issues for Respiratory Therapists will also be discussed.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of 'C' in RCP 565 Intensive Respiratory Care and a minimum grade of 'C' in RCP 690 Clinical Intensive Care

Course Fee: $75.00

Prior to Fall 2006 the course number was RT244U

RCP561 Introduction to Ventilator Support — 3 credits
This course prepares the student to initiate and manage invasive and noninvasive mechanical ventilation.

Lecture hours: 16
Lab/Clinic hours: 64

Prerequisite(s): A minimum grade of 'C' in RCP 100 Intro to Respiratory Care and a minimum grade of 'C' in RCP 260 Airway Maintenance Procedures

Co-requisite(s): A minimum grade of 'C' in RCP 315 Cardiopulmonary Therapeutics and a minimum grade of 'C' in RCP 680 Clinical Respiratory Care

Course Fee:

RCP565 Intensive Respiratory Care — 3 credits
This course expands the student's ability to manage mechanical ventilators by utilizing ventilator graphics to change settings as the patient improves or deteriorates. The student will learn about monitoring a patient's cardiopulmonary status with indwelling arterial lines, cardiac monitors, hemodynamic monitors, transcutaneous monitors, and capnography. Electrocardiograms and common intensive care drugs given to critical patients will also be discussed.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): RCP315 Cardiopulmonary Therapeutics and RCP560 Introduction to Ventilator Support

Course Fee: $145.00

RCP600 Neonatal/Pediatric Respiratory — 3 credits
This course provides in-depth knowledge into the complex problems associated with the neonatal and pediatric population. Neonatal and pediatric assessment, monitoring, and respiratory intervention will be a major focus. Abnormal conditions that occur during the transition from fetal development, to the perinatal period, to the pediatric stages of life will also be discussed. Simulation will be used to demonstrate the ability to identify and treat common abnormalities found in this population.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of C in RCP100 Intro to Respiratory Care and a minimum grade of C in RCP260 Airway Maintenance Procedures.

Co-requisite(s): A minimum grade of C in RCP680 Clinical Respiratory Care.

Course Fee: $125.00

RCP630 Pediatric/Neonatal Respiratory Care — 2 credits
This course provides in-depth knowledge into the complex problems associated with the pediatric and neonatal population. It will describe normal and explain abnormal conditions that occur during the transition from fetal development, to the perinatal period, to the pediatric stages of life.

Lecture hours: 0
Lab/Clinic hours: 32

Prerequisite(s): RCP100 Introduction to Respiratory Care

Course Fee: $125.00

Prior to Fall 2006 the course number was RT243U

**RCP680 Clinical Respiratory Care — 4 credits**
This course introduces the student to the hospital setting to develop important skills in communicating with patients and other health care personnel. The student will perform valuable patient assessments as well as basic respiratory care modalities. The modalities included are: oxygen therapy, lung expansion therapy, medication delivery, bronchial hygiene, intubation, extubation, suctioning, and tracheostomy care.

Lecture hours: 16
Lab/Clinic hours: 144

Course Fee:

**RCP690 Clinical Intensive Care — 8 credits**
This course expands clinical situations into the intensive care units, which includes invasive and noninvasive ventilators and hemodynamically unstable patients.

Lecture hours: 0
Lab/Clinic hours: 384

Prerequisite(s): A minimum grade of 'C' in RCP 350 Pulmonary Pathology,
A minimum grade of 'C' in RCP 561 Intro to Ventilator Support , and
A minimum grade of 'C' in RCP 680 Clinical Respiratory Care

Co-requisite(s): A minimum grade of 'C' in RCP 565 Intensive Respiratory Care

Course Fee: $400.00

**RCP875 Respiratory Care Applications — 2 credits**
This course is a summary course to combine textbook knowledge with application skills. It will test the student's ability in turning recalled information into better decision-making processes.

Lecture hours: 16
Lab/Clinic hours: 32

Prerequisite(s): A minimum grade of 'C' in RCP315 Cardiopulmonary Therapeutics, RCP350 Pulmonary Pathology, RCP561 Intro to Ventilator Support, and RCP600 Neonatal/Pediatric Respiratory

Co-requisite(s): A minimum grade of 'C' in RCP410 Cardiopulmonary Diagnostics, RCP565 Intensive Respiratory Care, and RCP690 Clinical Intensive Care

Course Fee: $420.00

**RCP900 Clinical Preceptor — 4 credits**
This course prepares the student for real-life hospital situations. The student will be expected to complete a full work day doing the full workload of an assigned Staff Therapist (preceptor). The student is expected to handle all aspects of respiratory care including pager interruptions and new situations. The preceptor will monitor the student at all times and will offer support if needed.

Lecture hours: 0
Lab/Clinic hours: 256

Prerequisite(s): RCP680 Clinical Respiratory Care and RCP690 Clinical Intensive Care

Course Fee:

**RCP910 Respiratory Care RRT Review — 2 credits**
This course is designed to test the student's ability to successfully earn passing scores on advanced-level examinations. Mock Written Registry and Clinical Simulation examinations will be a focus of this course. Review of an entry-level examination (CRT) will also be provided. Examinations will be administered after completion of a comprehensive review seminar.

Lecture hours: 32
Lab/Clinic hours:

Prerequisite(s): A minimum grade of C in RCP875 Respiratory Care Applications.

Course Fee:

**RDG038 College Preparatory Reading I — 3 credits**
This course is designed to help students improve their reading proficiency in order to manage college textbooks successfully.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): Appropriate Placement Scores or Equivalent

Other Requirements: Appropriate placement scores or equivalent.

Course Fee:

Prior to Fall 2006 the course number was SC022D

**RDG039 College Preparatory Reading II — 3 credits**
This course is designed to help students expand their academic vocabulary and improve comprehension skills. Students will learn and utilize a variety of reading strategies to be used in the reading of varying materials and to further their learning in their program of choice.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): RDG038 College Preparatory Reading I or appropriate placement scores or equivalent

Course Fee:

Prior to Fall 2006 the course number was SC023D

**RDG040 College Preparatory Reading III — 3 credits**
This course provides students with instruction of the reading skills necessary for success in college. Through the use of college-level materials, students are afforded opportunity for demonstration and application of critical reading skills.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): RDG039 College Preparatory Reading II, or appropriate COMPASS placement, or equivalent.

Course Fee:

**REL101 Survey of World Religions — 3 credits**
This course is an introductory survey of world religions that have had major impact on world culture and civilization: Hinduism, Taoism, Buddhism, Confucianism, Judaism, Christianity, Islam, and others. It will examine their cultural settings, sacred writings, key doctrines, central rituals, ethical values, and perspectives on gender roles.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was PR105T

REL130 Introduction to Religions of the East — 3 credits
This course is an interdisciplinary course that will explore the emergence, development, and diversification of the three cultural regions religious traditions. Student participants in this course will explore not only the basic beliefs and practices of these religions but also the ways in which they shape and are shaped by the cultures in which they are embedded. Emphasis will be placed upon understanding these religions as systems of meaning-creation.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

SDV108 The College Experience — 1 credits
This course is designed to orient students to the college campus, resources, services, and expectations. This course also provides a brief overview and practice of study skills and academic strategies.

Lecture hours: 16
Lab/Clinic hours:

Course Fee:

SDV109 College 101 — 3 credits
This course provides students a thorough orientation to the college campus and resources. The course is designed to introduce students to the college culture while they examine what a "successful" student is. Students will be introduced to a variety of skills for academic success, academic planning, personal development, and study strategies.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

SDV116 Strategies for Online Academic Success — 1 credits
This course prepares students to be successful in the online environment by introducing them to campus resources and academic strategies while equipping them with basic technology skills, such as file management, posting to discussion boards, and navigating a course website. It also gives them practical experience as an online or hybrid learner by using a Course Management System.

Lecture hours: 16
Lab/Clinic hours:

Course Fee:

SDV127 Study Strategies — 1 credits
This course provides a focused examination of the strategies and skills needed for students to be successful at the college level. Students will be introduced to and given opportunity for practice of a variety of skills for academic success and study strategies.
SDV131 Career Exploration — 2 credits
This course is designed to increase students' knowledge of themselves, of theories about careers, and of various resources available to them which will assist them in the career decision making process. Students, at the completion of this course, will be better able to choose academic majors and careers. This course is specifically designed to follow the National Career Development Guidelines.

Lecture hours: 32
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was IY102T

SDV161 Portfolio Development — 2 credits
This course provides students with the writing and research skills necessary to compile a personal portfolio documenting their prior education, occupational training, and work experiences. Students will examine personal, educational, and occupational goals and develop a plan of study which supports their goals and fulfills the requirements of the Interdisciplinary Studies program.

Lecture hours: 32
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was GT101U

SOC110 Introduction to Sociology — 3 credits
This course surveys the basic principles, concepts, and research findings of social life from small groups to societies. The course examines a range of sociological explanations for the various forms of social behaviors and establishes a basis for reflection and further study in the field.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was SO100T, SO190T

SOC115 Social Problems — 3 credits
This course introduces students to the sociological perspective and related critical thinking skills as a way of examining the cause and effect nature of contemporary social problems. Within this examination, emphasized are (a) the interdependence of social problems, (b) how social inequality is an inherent characteristic of all social problems, and (c) the relationship between definitions of social problems and social policies.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was SO118T

SOC120 Marriage and Family — 3 credits
Marriage and family is studied from a sociological viewpoint. Content areas focus on the history of family, gender roles, power in relationships, and functions of the family and dysfunctions. Statuses such as being single to marriage to parenthood are emphasized as are alternative lifestyles with respect to sexuality and
Prior to Fall 2006 the course number was SO112T, SO191T

**SOC135 Death and Dying — 3 credits**
This course provides a basic background on historical and contemporary perspectives on death and dying. Attention is given to current American practices regarding death as well as cross-cultural interpretation. Emphasis is also placed on the special situation of the terminally ill and bereaved.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was SO114T

**SOC160 Introduction to Social Work — 3 credits**
This course provides basic understanding of how American system of social services and the social work profession combine in order to meet the personal and social needs of persons who have been classified as "at risk" and in need of public assistance. Concepts relevant to social welfare, social change, social support, and structure are examined, including but not limited to legal aspects, systemic and professional goals and values, and various statuses and roles. In addition, various models and theories related to social work and social services will be examined. Lastly, this course includes a volunteer work experience within an agency setting.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was SO120T

**SOC195 Urban Studies — 3 credits**
This course is an interdisciplinary introduction to the study of urban issues and culture with an emphasis on the growth and development of urban areas. It utilizes a wide range of approaches: historical, political, social, spatial, economic, and cultural to examine the unique qualities and problems of urban life.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): A minimum grade of 'C-' in HIS152 U.S. History Since 1877, or SOC110 Introduction to Sociology, or SOC115 Social Problems, or GEO115 Human Geography, or POL111 American National Government

Course Fee:

Prior to Fall 2006 the course number was SS210T

**SOC200 Minority Group Relations — 3 credits**
This course examines racial and ethnic relations in the United States. Basic sociological concepts will be applied to historical and contemporary experiences of racial and ethnic groups with particular attention paid to minority groups.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:
SOC205 Diversity in America — 3 credits
This course is an introduction to the sociological study of majority-minority group relations. Focus will be on the basic concepts such as groups, intergroup relations, power, prejudice, and discrimination, as well as social understanding, tolerance, and acceptance. A wide assortment of minority groups, including women, racial, ethnic, the physically and mentally disabled, homosexuals, religious groups, the elderly and the young, and those singled out for their lower socio-economic status will be considered.

Lecture hours: 48
Lab/Clinic hours:
Course Fee:

Prior to Fall 2006 the course number was SO216T

SOC208 Introduction to Cultural Anthropology — 3 credits
This course introduces the student to a comparative study of societies around the world. In this course cultural similarities and differences are explored to illustrate how human beings construct and conduct their existence. It emphasizes the origin and maintenance of the human species by studying its evolution, cultural development, ecology, kinship, organizations, and symbolic expressions.

Lecture hours: 48
Lab/Clinic hours:
Course Fee:

Prior to Fall 2006 the course number was SS110T

SOC220 Sociology of Aging — 3 credits
This introductory gerontology course examines the influence of an aging society, explores the process of aging, old age as a state of life and the impact of aging both personally, and on society as a whole.

Lecture hours: 48
Lab/Clinic hours:
Course Fee:

Prior to Fall 2006 the course number was SS191T

SOC230 Juvenile Delinquency — 3 credits
This course is an investigation of the social and legal definitions of juvenile delinquency and its causes. It also focuses on the administration of juvenile court, probation and parole, and assessment of present and potential prevention programs.

Lecture hours: 48
Lab/Clinic hours:
Course Fee:

Prior to Fall 2006 the course number was SO106T

SOC240 Introduction to Criminology — 3 credits
This course explores the extent and causes of criminal behavior; analysis of crime in relationship to other social problems; and the nature of society’s response to crime.

Lecture hours: 48
Lab/Clinic hours:
Course Fee:

Prior to Fall 2006 the course number was SO104T
SOC251 Introduction to Social Psychology — 3 credits
Provides an introduction to the study of the interrelationship between the individual and social behavior with emphasis in the areas of social cognition, attribution, attitudes, group behavior, prejudice and discrimination, and interpersonal relationships. Basic psychological and sociological perspectives and research findings will be reviewed to better understand individual and social behavior.

Lecture hours: 48
Lab/Clinic hours:

Prerequisite(s): PSY111 Introduction to Psychology, SOC110 Introduction to Sociology, or instructor approval

Course Fee:

Prior to Fall 2006 the course number was PY118T

SOC261 Human Sexuality — 3 credits
This course explores the biological, psychological, social, cultural, and historical forces that influence human relationships and sexuality. Research and theory are utilized to examine the diversity of human sexual expression.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was SS160T

SOC820 Genography — 3 credits
This course explores themes of identity, difference, and migration that are raised by the analysis of DNA samples. As a central aspect of this course, students will submit a DNA sample to the National Geographic Society's Genographic Project. That sample will be analyzed and the students provided with a mapping of the migration of their genetic lineage. The course will examine the underlying biology of this analysis; sociological notions of sameness and difference; historical processes that have formed and changed our understandings of where we come from, who we are, and what we might become.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

SOC850 Cultural Immersion Field Experience — 1 credits
This course combines classroom and community-based learning to expand student understanding of the global society. Living within a diverse community and working with diverse groups of people, students will engage in an authentic and practical cultural immersion experience off-campus. Students can earn 1-3 credits.

Lecture hours: 0
Lab/Clinic hours: 48-144

Course Fee: $450.00

Prior to Fall 2006 the course number was SO185T

SOC924 Honors Project — 1 credits
This course involves in-depth independent research on an approved topic under supervision of a faculty member. Upon project's completion, results will be shared with community of peers and faculty. May be taken for up to 5 credits.

Lecture hours: 16
Lab/Clinic hours:
SOC928 Independent Study — 1 credits
This course provides opportunity for a student to focus previous course work and knowledge on a special issue as well as provide for individualized exploration of topics pertinent to the student's projected objectives within any recognized discipline. Faculty consultation is required prior to registration for this course. Students can earn 1-3 credits.
Lecture hours: 0
Lab/Clinic hours:

Course Fee:

SPC101 Fundamentals of Oral Communication — 3 credits
This course presents elements of the oral communications process with emphasis in developing public speaking skill. Students will be involved in activities that provide opportunity for the understanding and improvement of their oral communication skills.
Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was CM132T

SPC120 Intercultural Communications — 3 credits
This course explores basic principles and theories of intercultural communication with opportunities to gain communication competence through immersion experiences and cross-cultural interactions.
Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was CM135T

SPC122 Interpersonal Communication — 3 credits
This course explores concepts, contexts, and processes of person-to-person communication in relationships. Emphasis is placed on understanding how social worlds are created through conversation.
Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was CM136T

SPC132 Group Communication — 3 credits
This course examines the principles of small group communication processes with opportunities for students to apply theory in various structured discussion situations.
Lecture hours: 48
Lab/Clinic hours:
Prerequisite(s): SPC101 Fundamentals of Oral Communication

Course Fee:

Prior to Fall 2006 the course number was CM138T

SPC140 Oral Interpretation — 3 credits
This course will explore literature through performance using creative individual and group explorations.
Students will learn to select, analyze, rehearse, and perform literature of various types using vocal and physical techniques.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was CM134T

**TDT100 Interpersonal Relations — 2 credits**
This course covers personal health and safety, public and employer relations, and stress management on the job in a new career. Also included in the course are written communication and oral communication skills. Instruction is provided in employment seeking skills, resumes, cover letters, thank you letters, letters of application, personal record keeping, and desirable work attitude.

Lecture hours: 32
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was TR100U

**TDT115 Transportation Industry and Driver Regulations — 4 credits**
This course is an introduction to the surface transportation network and the trucking industry. Employment opportunities, company and driver regulations by the Department of Transportation and other Federal and State agencies will be covered.

Lecture hours: 64
Lab/Clinic hours:

Course Fee: $118.00

Prior to Fall 2006 the course number was TR101U

**TDT118 Driving Range I — 6 credits**
This course provides students with opportunities for hands-on experience in basic maneuvers using simulators, trucks and trailers. Proper techniques are taught in engine starting and shut down, clutching, shifting, cornering, and backing. Emphasis is given to proper safety and technical practices. Emergency and evasive driving techniques will be practiced in simulation exercises as well as in skid control vehicles.

Lecture hours: 48
Lab/Clinic hours: 144

Prerequisite(s): TDT115 Transportation Industry and Driver Regulations

Course Fee:

**TDT121 Driving Range II — 2 credits**
This course provides students with opportunities for additional behind the wheel training in operating trucks in rural and city traffic. Included in the course are experiences in pulling loaded trailers in city, rural areas, and backing in industrial areas. Emphasis is placed on defensive driving and proper technical practices.

Lecture hours: 16
Lab/Clinic hours: 48

Prerequisite(s): TDT120 Driving Range I

Course Fee: $250.00

Prior to Fall 2006 the course number was TR103U
TDT122 Driving Range III — 2 credits
This course prepares students with skills and knowledge in managing emergencies, accidents, first aid, CPR, and D.O.T. regulations on hauling hazardous materials. Instruction is provided in night inspections, city, and rural driving at night. Students will prepare for a Class A Commercial Drivers License with all endorsements.

Lecture hours: 16
Lab/Clinic hours: 48

Prerequisite(s): TDT121 Driving Range II

Course Fee: $250.00

Prior to Fall 2006 the course number was TR104U

TDT123 Transportation Industry for Entry-Level Drivers — 5 credits
This course is an introduction to The Federal Motor Carrier Safety Administrations’ rules and regulations pertaining to drivers of commercial motor vehicles. The course provides students with the knowledge and skills to become an entry level driver in the transportation industry.

Lecture hours: 80
Lab/Clinic hours:

Course Fee: $118.00

TDT124 Driving Range and Road Skills — 5 credits
This course provides students with hands-on experience in basic maneuvers with trucks and trailers. Proper techniques are taught in engine starting and shut down, clutching, shifting, cornering, and backing. Behind the wheel training will include pulling both loaded and empty trailers in rural, city, and interstate highway settings. Emphasis is placed on defensive driving and proper technical practices. Students will prepare for a Class A Commercial Drivers License with all endorsements.

Lecture hours: 16
Lab/Clinic hours: 128

Prerequisite(s): A minimum grade of C in TDT123 Transportation Industry for Entry-Level Drivers.

Course Fee: $685.00

TDT126 Commercial License Preparation — 3 credits
This course is an introduction to The Federal Motor Carrier Safety Administrations’ rules and regulations pertaining to drivers of commercial motor vehicles. This course prepares students to pass the knowledge tests required to obtain a Class A CDL.

Lecture hours: 48
Lab/Clinic hours:

Course Fee: $685.00

TDT128 Driving Skills Development — 3 credits
This course provides students with hands-on experience in basic maneuvers with trucks and trailers. Proper techniques are taught in engine starting and shut down, clutching, shifting, cornering and backing. Behind the wheel training will include pulling both loaded and empty trailers in rural, city and interstate highway settings. Emphasis is placed on defensive driving and proper technical practices. Students will prepare for a Class A Commercial Drivers License with all endorsements.

Lecture hours: 16
Lab/Clinic hours: 96

Co-requisite(s): TDT126 Commercial License Preparation
**TDT938 Truck Transportation On-the-Job Training — 3 credits**

Students enrolled in this course will have the opportunity to gain on-the-job experience in the Motor Carrier industry. Students will learn the responsibilities of driving, cargo handling, vehicle maintenance, safety department, and dispatch of equipment to customers. Students will have an opportunity to learn the skills necessary to succeed in the transportation field. Coordination and guidance will be provided by instructors.

Lecture hours: 0  
Lab/Clinic hours: 192  

Prerequisite(s): TDT100 Interpersonal Relations, TDT115 Transportation Industry and Driver Regulations, TDT120 Driving Range I, TDT121 Driving Range II, and TDT122 Driving Range III

**WDV102 Introduction to Web Development — 3 credits**

This course introduces the current standard of HTML and discusses upcoming versions. Students will learn the basics of CSS for design and layout using both text and multimedia. Website maintenance cycles and roles used in the cycles will be introduced. By using FTP, students will create and maintain small web page on a live web server. By using a text based editor, student will learn to code in an HTML editor rather than just the visual aspect to gain greater control of the code. Best design practices will be introduced.

Lecture hours: 32  
Lab/Clinic hours: 32  

**WDV105 Web Layouts — 3 credits**

This course is designed to give the student the knowledge of layouts and design of web sites. Students will use a graphic editor, such as Adobe Photoshop, to convert a visual image layout to a working HTML and CSS layout. This course goes over aspects of design to content in making a great web site.

Lecture hours: 32  
Lab/Clinic hours: 32  

**WDV300 Advanced Topics in Web Development — 3 credits**

This course is designed to give students a more in depth study of web sites. Topics will include security, troubleshooting/debugging, testing, and analytics. The course will help student develop a toolbox of techniques to improve their programming skills for web application development.

Lecture hours: 32  
Lab/Clinic hours: 32  

Prerequisite(s): A minimum grade of C in CIS217 Data Driven Web Page and CIS225 Advanced Server Side Web Programming.

**WDV800 Portfolio — 3 credits**

This course will help students present the best possible portfolio. This course will guide students in picking the right pieces to exemplify their skills. Students will create a portfolio to take job hunting. Students will learn about a number of aspects in job hunting. Students will also do a team based project for their portfolio.

Lecture hours: 32  
Lab/Clinic hours: 32
Other Requirements: Instructors consent needed. Must be a fourth semester Web Programming and Development student who is graduating to take this class.

Course Fee:

**WDV931 Internship — 2 credits**
This course provides students with the opportunity to gain practical work experience, while applying skills and techniques learned in their program of study, under the supervision of an employer, manager, or supervisor.

Lecture hours: 0
Lab/Clinic hours:
Co-op Hours: 128

Prerequisite(s): A minimum grade of C in CIS231 PHP Programming and CIS215 Server Side Web Programming.

Other Requirements: Instructors consent needed.

Course Fee:

**WEL104 Introduction to MIG Welding — 2 credits**
This course is an introduction to the Gas Metal Arc Welding process, also known as MIG Welding and Flux Cored Arc Welding. Topics include safety, theory of operation, advantages of both processes, types of power sources, types of wire electrodes and shielding gases, types of metal transfer, types of joints, minor equipment maintenance and basic welding terminology. Shop practice will include welding the five basic joints, with both welding processes, on mild steel in the flat and horizontal positions.

Lecture hours: 16
Lab/Clinic hours: 32

Course Fee:

**WEL111 Welding Blueprint Reading — 3 credits**
This course is an introduction to basic welding blueprint reading. Topics include the importance of blueprints as a form of communication, basic lines and views, dimensioning methods, tolerances, bill of material, identifying structural shapes, and basic sketching principles. The application and interpretation of AWS welding symbols and abbreviations is emphasized. Students will fabricate parts from the blueprint book.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was WL109U

**WEL112 Welding Blueprint Reading/ Advanced — 2 credits**
This course is a continuation of Blueprint Reading I. The application and interpretation of AWS welding symbols and abbreviations is emphasized in this unit. Students will also fabricate parts from the blueprint book.

Lecture hours: 32
Lab/Clinic hours:

Prerequisite(s): WEL111 Welding Blueprint Reading

Course Fee:

Prior to Fall 2006 the course number was WL137U

**WEL125 Fusion and Braze Welding — 2 credits**
This course is an introduction to Oxy-acetylene fusion welding and braze welding of steel and cast iron. Topics include process theory, safety, fusion welding/braze welding techniques for mild steel, fusion welding/braze
welding techniques for cast iron, and weld quality.

Lecture hours: 0
Lab/Clinic hours: 96

Prerequisite(s): WEL134 Cutting Processes and WEL155 Arc Welding I (SMAW)

Course Fee:

Prior to Fall 2006 the course number was WL110U

**WEL134 Cutting Processes — 2 credits**
This course is an introduction to principles and practices of oxy-fuel cutting, plasma cutting, and arc air gouging. Topics include safety, theory of operation, equipment, proper set-up procedures, and basic terminology. Shop practice includes plasma cutting and arc air gouging principles and practices and flame cutting of mild steel.

Lecture hours: 16
Lab/Clinic hours: 48

Course Fee:

Prior to Fall 2006 the course number was WL105U

**WEL155 Arc Welding I (SMAW) — 4 credits**
This course is an introduction to the Shielded Metal Arc Welding process, also known as stick welding. Topics of study include safety, theory of operation, types of welding power sources, advantages of the process, types of mild steel electrodes, types of joints, basic welding terms, and AC and DC current. Shop practice on the five basic joints will be performed in the flat and horizontal positions with various mild steel electrodes.

Lecture hours: 32
Lab/Clinic hours: 144

Course Fee: $200.00

Prior to Fall 2006 the course number was WL103U

**WEL164 Arc Welding II (SMAW) — 4 credits**
This course is a continuation of WEL-155 Arc Welding I. Vertical down, vertical up, and overhead welding procedures and techniques are introduced. Successful completion of the AWS Structural Steel Welding performance test is stressed. In addition, the student is introduced to the theory and practices of Hardsurfacing with the Shielded Metal Arc Welding process. Safety procedures are reviewed.

Lecture hours: 0
Lab/Clinic hours: 192

Prerequisite(s): WEL155 Arc Welding I (SMAW)

Course Fee:

Prior to Fall 2006 the course number was WL133U

**WEL186 GMAW — 4 credits**
This course is an introduction to the Gas Metal Arc Welding process, also known as MIG Welding and Flux Cored Arc Welding. Topics include safety, theory of operation, advantages of both processes, types of power sources, types of wire electrodes and shielding gases, types of metal transfer, types of joints, minor equipment maintenance, and basic welding terminology. Shop practice will include welding the five basic joints, with both welding processes, on mild steel in the flat and horizontal positions.

Lecture hours: 16
Lab/Clinic hours: 144
Course Fee:

Prior to Fall 2006 the course number was WL111U

**WEL187 Advanced GMAW — 4 credits**
This course is a continuation of WEL-186 GMAW. Vertical down, vertical up, and overhead welding procedures and techniques are introduced. Successful completion of the AWS Structural Steel Welding performance test is stressed. Safety procedures are reviewed.

Lecture hours: 0
Lab/Clinic hours: 192

Prerequisite(s): WEL186 GMAW

Course Fee:

Prior to Fall 2006 the course number was WL135U

**WEL191 Gas Tungsten Arc Welding — 3 credits**
This course is an introduction to Gas Tungsten Arc Welding process, also known as T.I.G. Topics of study include safety, theory of the process, advantages, types of power sources, pulsed power sources, types of electrodes and shielding gases, basic joints, basic welding terminology, and AC and DC current. Shop practice on the five basic joints in all positions will be emphasized. The learner will weld on mild steel, aluminum, and stainless steel sheet.

Lecture hours: 0
Lab/Clinic hours: 144

Prerequisite(s): WEL155 Arc Welding I (SMAW)

Course Fee:

Prior to Fall 2006 the course number was WL108U

**WEL234 Introduction to GMAW II — 2 credits**
The introduction to Gas Metal Arc Welding II course will allow students to enhance their basic welding hands-on skills to improve their proficiency using Metal Inert Gas (MIG) welding processes. Shop practice will include welding the five basic joints, with both welding processes, on mild steel in the flat and horizontal positions.

Lecture hours: 32
Lab/Clinic hours:

Prerequisite(s): A minimum grade of C in WEL104 Introduction to MIG Welding.

Course Fee:

**WEL303 Pipe Welding/ SMAW — 3 credits**
This course is an introduction to vertical down and vertical up pipe welding procedures and techniques. Topics include safety, elements of the American Petroleum Institute Pipe Welding Code and the American Society of Mechanical Engineers Pipe Welding Code, and the American Welding Society Structural Steel Pipe Welding Code.

Lecture hours: 0
Lab/Clinic hours: 144

Prerequisite(s): WEL155 Arc Welding I (SMAW) and WEL164 Arc Welding II (SMAW)

Course Fee:

Prior to Fall 2006 the course number was WL106U
WEL320 Welding Fabrication — 3 credits
This course is an introduction to fundamental metal fabrication methods. The application and use of basic measuring tools and layout techniques are covered in detail.

Lecture hours: 16
Lab/Clinic hours: 96

Prerequisite(s): WEL111 Welding Blueprint Reading, WEL112 Welding Blueprint Reading/ Advanced, WEL155 Arc Welding I (SMAW), WEL164 Arc Welding II (SMAW), WEL186 GMAW, WEL187 Advanced GMAW, and WEL303 Pipe Welding/ SMAW

Course Fee:

Prior to Fall 2006 the course number was WL220U

WEL339 Electromechanical Maintenance — 3 credits
This course is an introduction to basic welding and cutting processes. Topics include Shielded Metal Arc Welding, Gas Metal Arc Welding, Gas Tungsten Arc Welding, Oxy-Acetylene Fusion Welding and Braze Welding, Oxy-Fuel Flame Cutting, and Plasma Arc Cutting. Specific safety rules for oxy-fuel equipment, electric arc welding processes, and plasma cutting will be discussed.

Lecture hours: 16
Lab/Clinic hours: 64

Course Fee: $30.00

Prior to Fall 2006 the course number was IS155U

WEL402 Tool Steel Welding and Heat Treatment — 2 credits
This course is an introduction to the fundamental operations of selecting, welding, and heat treating tool steels. Classroom and shop instruction is given in welding safety, welding equipment, selection and manipulation of electrodes and the procedures in welding alloy and tool steels. The course will cover steel selection and basic heat treatment. Lab and class emphasis is on the changes that happen when steel is heated and cooled by welding as well as heat treating.

Lecture hours: 16
Lab/Clinic hours: 32

Course Fee: $245.00

Prior to Fall 2006 the course number was TD155U

WEL710 Robotic Welding — 6 credits
This course is an introduction to robotic welding. Students will learn the advantages and limitations of welding robots and their current application in modern manufacturing. Robot components and basic robot programming are covered in detail. The variables for Gas Metal Arc Welding, arc welding safety, robot safety and weld quality, and weld defects are included.

Lecture hours: 48
Lab/Clinic hours: 144

Prerequisite(s): MAT772 Applied Math and WEL155 Arc Welding I (SMAW) and WEL186 GMAW and WEL111 Welding Blueprint Reading and WEL187 Advanced GMAW

Course Fee:

WST101 Women's Studies — 3 credits
This course serves as an introduction to the interdisciplinary field of women's studies and to current women's issues in our society. It explores ways in which women get marginalized and silenced primarily by the social definitions and the patriarchal male power structure. The course seeks to help students develop critical
thinking relative to contemporary gender issues; to explore their assumptions about gender; to illuminate social constructions of femininity and women's roles; and to uncover the ways in which social teachings shape and limit women's lives.

Lecture hours: 48
Lab/Clinic hours:

Course Fee:

Prior to Fall 2006 the course number was WS100T

**WTT103 Wind Turbine Fundamentals — 2 credits**
The Wind Turbine Fundamentals course will provide students with the knowledge of the different types of Wind Turbines. Their development and their current status will be presented. The evolution of small (watts) to large (mega-watt) systems will be reviewed. The characteristics of wind capture and conversion will be analyzed from a regional, national, and global perspective. Jobs, training, and safety related to the wind industry will be studied. Students will be expected to carry out research and present reports on selected turbines or wind turbine.

Lecture hours: 16
Lab/Clinic hours: 32

Course Fee:

**WTT144 Wind Turbine System Controls — 3 credits**
The Wind Turbine System Controls course will cover the control functions necessary to maximize a wind turbines output, to enable safe operation and useful life.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

**XXX924 Honors Project — 1 credits**
This course involves in-depth independent research on an approved topic under supervision of a faculty member. Upon project's completion, results will be shared with community of peers and faculty. Can be taken for up to 3 credits.

Lecture hours: 16
Lab/Clinic hours:

Course Fee:

**XXX926 Honors Seminar — 3 credits**
Honors seminar in a topic selected by faculty member. The topic would change from semester to semester, coming from the faculty member's area of interest and may also include topics from the Phi Theta Kappa national honors topics.

Lecture hours: 48
Lab/Clinic hours:

Course Fee: