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

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
Application for Developing Program Status by the Accreditation Council for Occupational Therapy Education
4720 Montgomery Lane
Bethesda, MD 20814-3425

Physical Therapist Assistant Program
Effective April 19, 2011, the PTA Program at Hawkeye Community College has been granted Candidate for
Accreditation status by the Commission on Accreditation in Physical Therapy Education (1111 North Fairfax

Academic Affairs
Hawkeye Center
Lower Level
319-296-4015
Email us

Street, Alexandria, VA, 22314; phone: 703-706-3245; email: accreditation@apta.org). Candidate for Accreditation is a pre-accreditation status of affiliation with the Commission on Accreditation in Physical Therapy Education that indicates that the program may matriculate students in technical/professional courses and that the program is progressing toward accreditation. Candidate for Accreditation is not an accreditation status nor does it assure eventual accreditation.

Respiratory Therapy
Accredited by the Commission on Accreditation for Respiratory Care
1248 Harwood Road
Bedford, TX 76021-4244
(817) 283-2835

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.

Partnerships
Hawkeye's Agriculture and Natural Resources department is a Lead Partner College with AgrowKnowledge. This partnership of colleges, universities, and industry works together to support and enhance agriculture education and train the workforce.

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.

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

Program Admission Requirements

1. Be a high school graduate or equivalent.

2. Apply at Hawkeye.

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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

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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

Ag Leader Technology	Ames, IA
FS Growmark	Waverly, IA
MaxYield Cooperative	Emmetsburg, IA
Pioneer Hi-bred	Johnston and Reinbeck, IA
United Ag Products	Winthrop, IA

*As reported by the Agriculture and Natural Resources department

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

Sequence of Study

Agricultural Business Management	General Agriculture

Degree Awarded: AAS
Program Start: Fall, Spring, and Summer

View course descriptions

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 1

AGA114	Principles of Agronomy	3
AGC103	Ag Computer	3
AGS113	Survey of the Animal Industry	3
CNS121	Environmental Conservation	3
ENG105	Composition I OR	3
COM781	Written Communication in the Workplace	3
MAT772	Applied Math OR	3
	Math Elective	3

Total Credits 18

Semester 2

AGA154	Fundamentals of Soil Science	3
AGA376	Integrated Pest Management	3
AGP450	Fundamentals of GIS	3
AGS319	Animal Nutrition	3
PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3
SPC101	Fundamentals of Oral Communication	3

Total Credits 18

Semester 3

ACC131	Principles of Accounting I	4
AGA214	Cash Grains	3
AGB101	Agricultural Economics	3
AGB235	Introduction to Agriculture Markets	3
AGB303	Agriculture Leadership	3
AGP333	Precision Farming Systems	3

Total Credits 19

Semester 4

AGB331	Entrepreneurship in Agriculture	3
AGB336	Agricultural Selling	3
AGB466	Agricultural Finance	3
AGT805	Employment Experience	5

Total Credits 14

Math Electives

MAT110	Math for Liberal Arts	3
MAT122	College Algebra	5
MAT128	Precalculus	4
MAT134	Trigonometry and Analytic Geometry	3
MAT156	Statistics	3
MAT210	Calculus I	4
MAT216	Calculus II	4
MAT219	Calculus III	4

Sequence of Study

Agricultural Business Management	General Agriculture

Degree Awarded: Diploma
Program Start: Fall, Spring, and Summer

View course descriptions

Semester 1

AGA114	Principles of Agronomy	3
AGC103	Ag Computer	3
AGS113	Survey of the Animal Industry	3
CNS121	Environmental Conservation	3
ENG105	Composition I OR	3
COM781	Written Communication in the Workplace	3
MAT772	Applied Math OR	3
	Math Elective	3

Total Credits 18

Semester 2

AGA154	Fundamentals of Soil Science	3
AGA376	Integrated Pest Management	3

Total Credits 6

Math Electives

MAT110	Math for Liberal Arts	3
MAT122	College Algebra	5
MAT128	Precalculus	4
MAT134	Trigonometry and Analytic Geometry	3

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

MAT156	Statistics	3
MAT210	Calculus I	4
MAT216	Calculus II	4
MAT219	Calculus III	4

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 Petty-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

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.

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.

Math Electives		
MAT 110	Math for Liberal Arts	3
MAT 122	College Algebra	5
MAT 128	Precalculus	4
MAT 134	Trigonometry and Analytic Geometry	3
MAT 156	Statistics	3
MAT 210	Calculus I	4
MAT 216	Calculus II	4
MAT 219	Calculus III	4

Program Admission Requirements

1. Be a high school graduate or equivalent.

2. Apply at Hawkeye.

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

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me

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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*

Employers

ADM Nutrition	Quincy, IL
Beef Products, Inc.	Dakota Dunes, SD
Heartland Co-op	West Des Moines, IA
JBS Swift & Co.	Marshalltown, IA
Tyson Fresh Meats, Inc.	Waterloo, IA

*As reported by the Agriculture and Natural Resources department

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

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me

Sequence of Study

Animal Science | **General Agriculture**

Degree Awarded: AAS
Program Start: Fall and Spring

View course descriptions

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

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me

Semester 1		
AGC103	Ag Computer	3
AGS113	Survey of the Animal Industry	3
AGS305	Livestock Evaluation	3
PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3
SPC101	Fundamentals of Oral Communication	3
	Science Elective	3

Total Credits 18

Science electives may be chosen from the disciplines of BIO, CHM, CNS, ENV, GEO, PHS, or PHY.

Semester 2		
ACC131	Principles of Accounting I OR	4
ACC115	Introduction to Accounting	4
AGA114	Principles of Agronomy	3
AGA154	Fundamentals of Soil Science	3
AGS319	Animal Nutrition	3
COM781	Written Communication in the Workplace OR	3
ENG105	Composition I	3
MAT772	Applied Math OR	3
	Math Elective	3

Semester 3		
AGB303	Agriculture Leadership	3
AGB336	Agricultural Selling	3
AGS211	Issues Facing Animal Science	2
AGS218	Domestic Animal Physiology	4
AGS225	Swine Science OR	3
	Agriculture Elective	3

Total Credits 15

Semester 4		
AGB235	Introduction to Agriculture Markets	3
AGS226	Beef Cattle Science OR	3
	Agriculture Elective	3
AGS272	Foods of Animal Origin	5
AGT805	Employment Experience	5

Total Credits 16

Agriculture Electives		
AGA214	Cash Grains	3
AGA284	Pesticide Application Certification	3
AGA376	Integrated Pest Management	3
AGB101	Agricultural Economics	3
AGB111	Agriculture Enterprise Lab	1
AGP333	Precision Farming Systems	3
AGP450	Fundamentals of GIS	3
AGS192	Livestock Judging	3
AGS216	Equine Science	3
AGS229	Sheep Science	3
AGT220	AG Research	3

Math Electives		
MAT 110	Math for Liberal Arts	3
MAT 122	College Algebra	5
MAT 128	Precalculus	4
MAT 134	Trigonometry and Analytic Geometry	3
MAT 156	Statistics	3
MAT 210	Calculus I	4
MAT 216	Calculus II	4
MAT 219	Calculus III	4

Sequence of Study

Animal Science | **General Agriculture**

Degree Awarded: Diploma
Program Start: Fall and Spring

View course descriptions

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

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me

Semester 1

AGC103	Ag Computer	3
AGS113	Survey of the Animal Industry	3
AGS305	Livestock Evaluation	3
PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3
SPC101	Fundamentals of Oral Communication	3
	Science Elective	3

Total Credits 18

Science electives may be chosen from the disciplines of BIO, CHM, CNS, ENV, GEO, PHS, or PHY.

Semester 2

ACC131	Principles of Accounting I OR	4
ACC115	Introduction to Accounting	4
AGA114	Principles of Agronomy	3
AGA154	Fundamentals of Soil Science	3
AGS319	Animal Nutrition	3
COM781	Written Communication in the Workplace OR	3
ENG105	Composition I	3
MAT772	Applied Math OR	3
	Math Elective	3

Math Electives		
MAT 110	Math for Liberal Arts	3
MAT 122	College Algebra	5
MAT 128	Precalculus	4
MAT 134	Trigonometry and Analytic Geometry	3
MAT 156	Statistics	3
MAT 210	Calculus I	4
MAT 216	Calculus II	4
MAT 219	Calculus III	4

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 Petty-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 - Veterinary Assisting Option

This Animal Science - 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.

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.

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Program Admission Requirements

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Dianne Lellig
Butler Hall 104
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Program Advisors
Ole Cleveland
Bremer Hall 101-B
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Email me

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Bremer Hall 101-E
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Dean
Ray Beets
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Email me

Careers

Veterinary technologists and technicians are some of the fastest growing occupations in Iowa.

Placement

Starting wages - $21,500 - $30,000 per year*

*Source: Iowa Workforce Development

Employers

Brookside Veterinary Hospital	Cedar Falls, IA
Den Herder Veterinary Hospital	Waterloo, IA
Keepers of the Wild Nature Park & Animal Sanctuary	Valentine, AZ
Klima Small Animal Clinic	Waterloo, IA
PetSmart	Waterloo, IA

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Dianne Lellig
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Sequence of Study

Animal Science - Veterinary Assisting Option

Degree Awarded: Diploma
Program Start: Fall and Spring

View course descriptions

Semester 1

AGV101	Veterinary Assisting	3
AGV121	Veterinary Medical Terminology	2
AGV140	Veterinary Pharmacology	3
AGV154	Veterinary Reception and Administration Skills	4
PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3
	Agriculture Elective*	3

Total Credits 18

* Agriculture electives can be chosen from the following disciplines of AGA, AGB, AGP, AGS, AGT, BIO, or CHM.

Semester 2

AGS211	Issues Facing Animal Science	2
AGS218	Domestic Animal Physiology	4
AGS319	Animal Nutrition	3
AGV123	Companion Animal	3
COM781	Written Communication in the Workplace OR	3
ENG105	Composition I	3
MAT772	Applied Math OR	3
	Math Elective	3

		Total Credits 18

Semester 3		
AGT805	Employment Experience	5

		Total Credits 5

Math Electives		
MAT110	Math for Liberal Arts	3
MAT122	College Algebra	5
MAT128	Precalculus	4
MAT134	Trigonometry and Analytic Geometry	3
MAT156	Statistics	3
MAT210	Calculus I	4
MAT216	Calculus II	4
MAT219	Calculus III	4

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

Horticulture Science

The Horticulture 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 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. A Park and Turf option has a direct articulation agreement with the University of Northern Iowa Leisure Services Department. Many other state and private colleges and universities accept up to 65 credit hours. For more information, contact a program advisor.

College Catalog | Next Page >

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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

College Catalog | Next Page >

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: $18,000 - $32,000 per year*

*Source: Iowa Workforce Development

Employers

Bear Creek Landscaping	Cedar Falls, IA
Beaver Landscaping	Waterloo, IA
Cedar Falls Parks & Recreation	Cedar Falls, IA
Elmcrest Country Club	Cedar Rapids, IA
Matthias Landscaping	Cedar Falls, IA
Minnesota Vikings	Minneapolis, MN
Wapsie Pines Landscaping	Dunkterton, IA
Waterloo Leisure Services	Waterloo, IA
Wildcat Golf Course	Shellsburg, IA

Many graduates have become self-employed and own successful businesses.

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

Sequence of Study

| Horticulture Science | Landscape Option | Park & Turf Management | Turf Option | Diploma Option |

Degree Awarded: AAS
Program Start: Fall and Spring

<u>View course descriptions</u>

Semester 1

AGA154	Fundamentals of Soil Science	3
AGC103	Ag Computer OR	3
CSC110	Introduction to Computers	3
AGH112	Introduction to Turfgrass Management	3
AGH221	Principles of Horticulture OR	3
AGH710	Introduction to Leisure Services	3
AGH280	Botany for Horticulture	3
ENG105	Composition I OR	3
COM781	Written Communication in the Workplace	3

Total Credits 18

Semester 2

AGA376	Integrated Pest Management	3
AGH222	Plant Propagation I OR	2
AGH720	Leadership in Leisure Services	3
MAT772	Applied Math OR	3
	Math Elective	3
PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3
	Horticulture Elective - Group 1	8

Total Credits 19

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		
AGT805	Employment Experience	5

Total Credits 5

Semester 3 is an optional. AGT805 is a required class.

Semester 4		
AGH122	Woody Plant Materials	2
AGH322	Plant Propagation II OR	2
AGH730	Programming for Leisure Services	3
SPC101	Fundamentals of Oral Communication	3
	Horticulture Elective - Group 2	9

Total Credits 16

Semester 5		
AGB331	Entrepreneurship in Agriculture	3
	Horticulture Elective - Group 1	9

Total Credits 12

Math Elective		
MAT110	Math for Liberal Arts	3
MAT122	College Algebra	5
MAT128	Precalculus	4
MAT134	Trigonometry and Analytic Geometry	3
MAT156	Statistics	3
MAT210	Calculus I	4
MAT216	Calculus II	4
MAT219	Calculus III	4

Horticulture Electives - Group 1		
ADM222	Career Capstone	3
AGA284	Pesticide Application Certification	3

AGH107	Horticulture Lab	1
AGH119	Herbaceous Plant Materials	2
AGH140	Equipment Operations	2
AGH211	Advanced Turfgrass Management	3
AGH270	Nursery Production	2
AGH281	Arboriculture	3
AGH292	Garden Center Management	3
AGH425	Grounds Maintenance	3
AGH610	Spanish for the Green Industry	3
AGP340	Foundations of GIS and GPS	3
AGT805	Employment Experience	5
CNS121	Environmental Conservation	3

Horticulture Electives - Group 2

AGH107	Horticulture Lab	1
AGH134	Greenhouse Production	3
AGH140	Equipment Operations	2
AGH143	Equipment Repair	3
AGH145	Landscape Construction	2
AGH161	Irrigation Systems	3
AGH273	Nursery Management	3
AGH400	Athletic Field Maintenance	3
AGH610	Spanish for the Green Industry	3
AGT805	Employment Experience	5
CNS121	Environmental Conservation	3

Sequence of Study

| Horticulture Science | Landscape Option | Park & Turf Management | Turf Option | Diploma Option |

Degree Awarded: AAS
Program Start: Fall and Spring

View course descriptions

Semester 1

AGA154	Fundamentals of Soil Science	3
AGC103	Ag Computer OR	3
CSC110	Introduction to Computers	3
AGH112	Introduction to Turfgrass Management	3
AGH221	Principles of Horticulture OR	3
AGH710	Introduction to Leisure Services	3
AGH280	Botany for Horticulture	3
ENG105	Composition I OR	3
COM781	Written Communication in the Workplace	3

Total Credits 18

Semester 2

AGA376	Integrated Pest Management	3
AGH222	Plant Propagation I OR	2
AGH710	Introduction to Leisure Services	3
MAT772	Applied Math OR	3
	Math Elective	
PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3
	Horticulture Elective	8

Total Credits 19

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		
AGT805	Employment Experience	5

Total Credits 5

Semester 3 is an optional. AGT805 is a required class.

Semester 4		
AGH122	Woody Plant Materials	2
AGH322	Plant Propagation II OR	2
AGH730	Programming for Leisure Services	3
SPC101	Fundamentals of Oral Communication	3
	Horticulture Elective	9

Total Credits 16

Semester 5		
AGB331	Entrepreneurship in Agriculture	3
	Horticulture Elective	9

Total Credits 12

Math Electives		
MAT110	Math for Liberal Arts	3
MAT122	College Algebra	5
MAT128	Precalculus	4
MAT134	Trigonometry and Analytic Geometry	3
MAT156	Statistics	3
MAT210	Calculus I	4
MAT216	Calculus II	4
MAT219	Calculus III	4

Horticulture Electives		
ADM222	Career Capstone	3
AGA284	Pesticide Application Certification	3

AGH119	Herbaceous Plant Materials	2
AGH140	Equipment Operations	2
AGH145	Landscape Construction	2
AGH152	Landscape Design Techniques	3
AGH161	Irrigation Systems	3
AGH270	Nursery Production	2
AGH273	Nursery Management	3
AGH281	Arboriculture	3
AGH292	Garden Center Management	3
AGH610	Spanish for the Green Industry	3
CNS121	Environmental Conservation	3

Sequence of Study

| Horticulture Science | Landscape Option | **Park & Turf Management** | Turf Option | Diploma Option |

Degree Awarded: AAS
Program Start: Fall and Spring

View course descriptions

Semester 1

AGA154	Fundamentals of Soil Science	3
AGC103	Ag Computer OR	3
CSC110	Introduction to Computers	3
AGH112	Introduction to Turfgrass Management	3
AGH280	Botany for Horticulture	3
AGH710	Introduction to Leisure Services	3
ENG105	Composition I OR	3
COM781	Written Communication in the Workplace	3

Total Credits 18

Semester 2

AGA376	Integrated Pest Management	3
AGH720	Leadership in Leisure Services	3
MAT772	Applied Math OR	3
	Math Elective	3
PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3
	Horticulture Elective	8

Total Credits 20

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		
AGT805	Employment Experience	5
	Total Credits 5	

Semester 3 is an optional. AGT805 is a required class.

Semester 4		
AGH122	Woody Plant Materials	2
AGH730	Programming for Leisure Services	3
SPC101	Fundamentals of Oral Communication	3
	Horticulture Elective	9
	Total Credits 17	

Semester 5		
AGB331	Entrepreneurship in Agriculture	3
	Horticulture Elective	9
	Total Credits 12	

Math Elective		
MAT110	Math for Liberal Arts	3
MAT122	College Algebra	5
MAT128	Precalculus	4
MAT134	Trigonometry and Analytic Geometry	3
MAT156	Statistics	3
MAT210	Calculus I	4
MAT216	Calculus II	4
MAT219	Calculus III	4

Horticultre Electives		
AGH140	Equipment Operations	2
AGH145	Landscape Construction	2

AGH161	Irrigation Systems	3
AGH211	Advanced Turfgrass Management	3
AGH281	Arboriculture	3
AGH400	Athletic Field Maintenance	3
AGH425	Grounds Maintenance	3
AGH710	Introduction to Leisure Services	3
AGH720	Leadership in Leisure Services	3
AGH730	Programming for Leisure Services	3
AGP340	Foundations of GIS and GPS	3

Sequence of Study

| Horticulture Science | Landscape Option | Park & Turf Management | Turf Option | Diploma Option |

Degree Awarded: AAS
Program Start: Fall and Spring

View course descriptions

Semester 1

AGA154	Fundamentals of Soil Science	3
AGC103	Ag Computer OR	3
CSC110	Introduction to Computers	3
AGH112	Introduction to Turfgrass Management	3
AGH221	Principles of Horticulture OR	3
AGH710	Introduction to Leisure Services	3
AGH280	Botany for Horticulture	3
ENG105	Composition I OR	3
COM781	Written Communication in the Workplace	3

Total Credits 18

Semester 2

AGA376	Integrated Pest Management	3
AGH222	Plant Propagation I OR	2
AGH720	Leadership in Leisure Services	3
MAT772	Applied Math OR	3
	Math Elective	
PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3
	Horticulture Elective	8

Total Credits 19

Semester 3		
AGT805	Employment Experience	5

Total Credits 5

Semester 3 is optional, but AGT805 is a required class. If this class is not taken during this semester, you will need to complete the course in another semester.

Semester 4		
AGH122	Woody Plant Materials	2
AGH322	Plant Propagation II OR	2
AGH730	Programming for Leisure Services	3
SPC101	Fundamentals of Oral Communication	3
	Horticulture Elective	9

Total Credits 16

Semester 5		
AGB331	Entrepreneurship in Agriculture	3
	Horticulture Elective	9

Total Credits 12

Math Electives		
MAT110	Math for Liberal Arts	3
MAT122	College Algebra	5
MAT128	Precalculus	4
MAT134	Trigonometry and Analytic Geometry	3
MAT156	Statistics	3
MAT210	Calculus I	4
MAT216	Calculus II	4
MAT219	Calculus III	4

Horticulture Electives		
ADM222	Career Capstone	3

AGA284	Pesticide Application Certification	3
AGH140	Equipment Operations	2
AGH143	Equipment Repair	3
AGH145	Landscape Construction	2
AGH161	Irrigation Systems	3
AGH211	Advanced Turfgrass Management	3
AGH281	Arboriculture	3
AGH400	Athletic Field Maintenance	3
AGH425	Grounds Maintenance	3
AGH610	Spanish for the Green Industry	3
AGP340	Foundations of GIS and GPS	3
CNS121	Environmental Conservation	3

Sequence of Study

| Horticulture Science | Landscape Option | Park & Turf Management | Turf Option | Diploma Option |

Degree Awarded: Diploma
Program Start: Fall and Spring

View course descriptions

Semester 1

AGC103	Ag Computer OR	3
CSC110	Introduction to Computers	3
AGH112	Introduction to Turfgrass Management	3
AGH140	Equipment Operations	2
AGH152	Landscape Design Techniques	3
AGH280	Botany for Horticulture	3
ENG105	Composition I OR	3
COM781	Written Communication in the Workplace	3

Total Credits 17

Semester 2

AGA284	Pesticide Application Certification	3
AGA376	Integrated Pest Management	3
AGH119	Herbaceous Plant Materials	2
AGH222	Plant Propagation I	2
AGH270	Nursery Production	2
AGH425	Grounds Maintenance	3
PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3

Total Credits 18

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

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 to gain experience in wilderness ethics, orienteering, canoeing, portaging, camping, and much more. Students train for this experience at Hickory Hills County Park in the weeks prior to this experience.

Transfer Information
Hawkeye Community College's Agriculture and Natural Resources programs have articulation agreements with Iowa State University, Upper Iowa University, and Mount Mercy 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
We host many special events in our program, both on and off campus.

During the first year we hold a two day retreat in January to:

- introduce students to prospective employers and expose them to various Natural Resources careers.

- expose students to four-year transfer colleges and their admission requirements prior to graduation and transfer time.

- provide a variety of outdoor recreation opportunities.

- provide an environment of teambuilding and leadership opportunities.

Other activities include:

- two day "Leave No Trace" training to prepare our students for their adventure into the wilderness and also assist in our teambuilding efforts.

- canoe trip and campout in the fall.

- prescribed burns in the spring.

- Trumpeter Swan Roundup in the spring.

Second year students enjoy the wide variety of projects performed in Natural Areas Management class, timber stand improvement projects in Woodland Management class, and fisheries projects in Aquatic Management class.

Program Admission Requirements

1. Be a high school graduate or equivalent.

2. Apply at Hawkeye.

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

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

   For admission into the Natural Resources Management program, you must score at least the following sub scores on the ACT or the COMPASS assessment:

   ACT sub scores

   - 19 - Math
   - 19 - Reading
   - 19 - English

   COMPASS scores

   - 24 - Pre-Algebra
   - 69 - Reading
   - 41 - Writing

   OR

   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
   - MAT045 Fundamentals of Math
   - RDG039 College Preparatory Reading II

   OR

   Any combination of the above options fulfilling the basic skills requirements in algebra, reading, and writing.

Admissions Process

1. Send your transcripts and test scores to the Admissions office.

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 inactivated and will be sent an Admissions Inactivation Letter.

   b. Applicants who meet the program's admission requirements will be acceptable for admission.

3. We accept approximately 24 students and 24 alternates each Fall and Spring semester. Applicants will be accepted based on the date their applicant file was completed. If many

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

students share the same date for completing their applicant file, the date you submitted your application, if needed, 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 the next semester.

5. If you are offered acceptance to begin the Natural Resources Management 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 Nondiscrimination Statement

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

Absolute Energy	Osage, IA
Buchanan County Secondary Roads	Independence, IA
Cerro Gordo County Conservation Board	Mason City, IA
Clayton County Parks	Elkader, IA
Feder's Prairie Seed	Blue Earth, MN
Grundy County Conservation Board	Grundy Center, IA
Hardin County Conservation Board	Iowa Falls, IA
Iowa Department of Natural Resources	Manchester, IA and other locations
Montana Fish & Game	Libby, MT

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

Sequence of Study

| Natural Resources Management | Transfer Option | Diploma Option | Certificate Option |

Degree Awarded: AAS
Program Start: Fall and Spring

View course descriptions

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

Semester 1		
AGC103	Ag Computer OR	3
	Elective	3
CNS107	Outdoor Recreation Techniques	1
CNS108	Wildlife Identification	3
CNS121	Environmental Conservation	3
CNS204	Native Vegetation	3
ENG105	Composition I OR	3
COM781	Written Communication in the Workplace	3

Total Credits 16

Any 3 credit course can be taken to fulfill for the elective.

Semester 2		
AGH140	Equipment Operations	2
CNS106	Wildlife Ecology	4
CNS143	Fire Management	3
MAT122	College Algebra OR	5
	Math Elective	3
PSY111	Introduction to Psychology OR	3
PSY102	Human & Work Relations OR	3
SOC110	Introduction to Sociology	3

Total Credits 17

Semester 3

AGA284	Pesticide Application Certification OR	3
BIO112	General Biology I	4
AGP340	Foundations of GIS and GPS OR	3
SOC205	Diversity in America	3
CNS136	Aquatic Management OR	3
ENG106	Composition II	3
CNS138	Woodland Management	3
CNS205	Advanced Outdoor Recreation Techniques	1
CNS228	Natural Areas Management	3

Total Credits 16

You can choose to take CNS138 and ENG106 instead of CNS136 and CNS138.

Semester 4

AGA154	Fundamentals of Soil Science OR	3
BIO113	General Biology II	4
AGT805	Employment Experience	5
CNS201	Conservation Biology	4
CNS231	Integrated Roadside Vegetation Management OR	2
CNS134	Wildlife Management OR	4
PHI105	Introduction to Ethics	3
SPC101	Fundamentals of Oral Communication	3

Total Credits 17

Math Electives

MAT110	Math for Liberal Arts	3
MAT128	Precalculus	4
MAT134	Trigonometry and Analytic Geometry	3
MAT156	Statistics	3
MAT210	Calculus I	4
MAT216	Calculus II	4
MAT219	Calculus III	4

Sequence of Study

| Natural Resources Management | Transfer Option | Diploma Option | Certificate Option |

Degree Awarded: AAS
Program Start: Fall and Spring

View course descriptions

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

Semester 1		
CNS107	Outdoor Recreation Techniques	1
CNS108	Wildlife Identification	3
CNS121	Environmental Conservation	3
CNS204	Native Vegetation	3
ENG105	Composition I	3
	Elective	3

Total Credits 16

Any 3 credit course may be taken to fulfill the elective.

Semester 2		
AGH140	Equipment Operations OR	2
CHM165	General Chemistry I OR	4
CHM122	Introduction to General Chemistry	4
CNS106	Wildlife Ecology	4
CNS143	Fire Management OR	3
CHM165	General Chemistry I OR	4
CHM122	Introduction to General Chemistry	4
MAT110	Math for Liberal Arts OR	3
	Math Elective	
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3

SPC101	Fundamentals of Oral Communication	3

Total Credits 18

Semester 3		
BIO112	General Biology I OR	4
AGA284	Pesticide Application Certification	3
CNS136	Aquatic Management OR	3
ENG106	Composition II	3
CNS138	Woodland Management	3
CNS205	Advanced Outdoor Recreation Techniques	1
CNS228	Natural Areas Management	3
SOC205	Diversity in America OR	3
AGP340	Foundations of GIS and GPS	3

Total Credits 17

You can choose to take CNS138 and ENG 106 instead of CNS136 and CNS138

Semester 4		
BIO113	General Biology II OR	4
AGA154	Fundamentals of Soil Science	3
CNS201	Conservation Biology	4
CNS231	Integrated Roadside Vegetation Management OR	2
CNS134	Wildlife Management OR	4
PHI105	Introduction to Ethics	3
MAT122	College Algebra OR	5
	Math Elective	

Total Credits 15

Math Electives		
MAT122	College Algebra	5
MAT128	Precalculus	4
MAT134	Trigonometry and Analytic Geometry	3
MAT156	Statistics	3
MAT210	Calculus I	4

MAT216	Calculus II	4
MAT219	Calculus III	4

Sequence of Study

| Natural Resources Management | Transfer Option | Diploma Option | Certificate Option |

Degree Awarded: Diploma
Program Start: Fall and Spring

View course descriptions

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

Semester 1		
AGC103	Ag Computer OR	3
	Elective	3
CNS107	Outdoor Recreation Techniques	1
CNS108	Wildlife Identification	3
CNS121	Environmental Conservation	3
CNS204	Native Vegetation	3
ENG105	Composition I OR	3
COM781	Written Communication in the Workplace	3

Total Credits 16

Any 3 credit course may be taken in order to fulfill the elective course.

Semester 2		
AGH140	Equipment Operations	2
CNS106	Wildlife Ecology	4
CNS143	Fire Management OR	3
CHM122	Introduction to General Chemistry OR	4
CHM165	General Chemistry I	4
MAT772	Applied Math OR	3
	Math Elective	
PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology	3

SOC110	Introduction to Sociology	3

Total Credits 15

Math Electives		
MAT 110	Math for Liberal Arts	3
MAT 122	College Algebra	5
MAT 128	Precalculus	4
MAT 134	Trigonometry and Analytic Geometry	3
MAT 156	Statistics	3
MAT 210	Calculus I	4
MAT 216	Calculus II	4
MAT 219	Calculus III	4

Sequence of Study

Natural Resources Management	Transfer Option	Diploma Option	Certificate Option

Degree Awarded: Certificate
Program Start: Fall and Spring

View course descriptions

Semester 1		
AGC103	Ag Computer OR	3
	Elective	3
CNS107	Outdoor Recreation Techniques	1
CNS108	Wildlife Identification	3
CNS121	Environmental Conservation	3
CNS204	Native Vegetation	3

Total Credits 13

Any 3 credit course may be taken to fulfill the elective course.

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

College Catalog | Next Page >

Graphic Communications

The Graphic Communications program provides students with an advanced level of experience using the leading page layout, drawing, and image manipulation software. Students are provided with experience in design and layout, illustration, desktop publishing, typography, production processes, and web page construction.

Transfer Information

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

Program Contacts

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

Program Advisors
Patricia Willoughby
Black Hawk Hall 151
319-296-4428
Email me

Terry Juhl
Black Hawk Hall 155
319-296-2329 ext.1437
Email me

Dan Jensen
Black Hawk Hall 152
319-296-2329 ext.1295
Email me

Program Admission Requirements

1. Be a high school graduate or equivalent.

2. <u>Apply at Hawkeye.</u>

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 admission into the Graphic Communications program, you must score at least the following sub scores on the ACT or the COMPASS assessment:

   ACT sub scores

   - 19 - Math
   - 19 - Reading
   - 19 - English

   COMPASS scores

   - 24 - Pre-Algebra
   - 82 - Reading
   - 65 - Writing

   OR

   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:

   OR

   Any combination of the above fulfilling the basic skills requirements of algebra, reading, and writing.
   - MAT045 Fundamentals of Math
   - RDG040 College Preparatory Reading III
   - ENG061 College Preparatory Writing II

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

Admissions Process

1. Send your transcripts and test scores to the <u>Admissions office</u>.

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 inactivated and will be sent an Admissions Inactivation Letter.

Program Contacts

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

Program Advisors
Patricia Willoughby
Black Hawk Hall 151
319-296-4428
Email me

Terry Juhl
Black Hawk Hall 155
319-296-2329 ext.1437
Email me

Dan Jensen
Black Hawk Hall 152
319-296-2329 ext.1295
Email me

b. Applicants who meet the program's admission requirements will be acceptable for admission.

3. We accept approximately 54 students and 20 alternates 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 date you submitted your application, if needed, 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 Fall Semester.

Hawkeye's Equal Opportunity Statement

Careers

Graduates work in a variety of settings in the graphic communication industry. Graduates find employment as:

- graphic designers
- art directors
- production artists
- web designers
- advertising designers

Placement

Starting Wages: $26,000 - $39,000 per year*

*Source: Iowa Workforce Development

Employers

Edgecore	Cedar Falls, IA
Hellman Associates	Waterloo, IA
Iowa Telecom	Des Moines, IA
JW Morton & Associates	Cedar Rapids, IA
McCullough Creative	Dubuque, IA
Professional Office Services	Waterloo, IA
T8 Webware	Cedar Falls, IA
WDG Communications	Cedar Rapids, IA

Program Contacts

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

Program Advisors
Patricia Willoughby
Black Hawk Hall 151
319-296-4428
Email me

Terry Juhl
Black Hawk Hall 155
319-296-2329 ext.1437
Email me

Dan Jensen
Black Hawk Hall 152
319-296-2329 ext.1295
Email me

Sequence of Study

Graphic Communications

Degree Awarded: AAA
Program Start: Fall only

View course descriptions

Semester 1		
COM781	Written Communication in the Workplace OR	3
ENG105	Composition I	3
GRA105	Drawing and Composition OR	4
ART133	Drawing AND	3
ART134	Drawing II	3
GRA133	Desktop Publishing	4
GRA174	Typography	5

Total Credits 16

Semester 2		
GRA106	Principles of Illustration	4
GRA124	Electronic Illustration	4
GRA185	Design and Layout	4
GRA231	Photo Direction	2
MAT772	Applied Math OR	3
	Math Elective	3

Total Credits 17

Semester 3		
GRA142	Graphic Imaging	4
GRA186	Design and Layout II	4

Program Contacts

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

Program Advisors
Patricia Willoughby
Black Hawk Hall 151
319-296-4428
Email me

Terry Juhl
Black Hawk Hall 155
319-296-2329 ext.1437
Email me

Dan Jensen
Black Hawk Hall 152
319-296-2329 ext.1295
Email me

GRA200	Applications of Color	3
GRA285	Production Processes	3
PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology	3
SOC110	Introduction to Sociology	3

Total Credits 17

Semester 4

GRA187	Advanced Design	4
GRA227	Interactive Multimedia	4
GRA237	Web Site Construction	4
GRA290	Portfolio Preparation	3
SPC101	Fundamentals of Oral Communication	3

Total Credits 18

Math Electives

MAT110	Math for Liberal Arts	3
MAT122	College Algebra	5
MAT128	Precalculus	4
MAT134	Trigonometry and Analytic Geometry	3
MAT156	Statistics	3
MAT210	Calculus I	4
MAT216	Calculus II	4
MAT219	Calculus III	4

Interior Design

The Interior Design program prepares students to plan the spaces in which people live and work. The main focus of the interior designer is to establish client needs, preferences, and budget in the selection of furniture, materials, colors, and lighting. Interior designers draw upon many disciplines to enhance the health, safety, and welfare of interior spaces. They prepare presentation boards and business documents as they coordinate the project through completion.

Experience and Training
The curriculum is developed with the guidance of a strong advisory committee composed of professional interior designers. Students have the opportunity to work in a professional interior design setting through their internship.

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

College Catalog | Next Page >

Program Contacts

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

Program Advisors
Judy Shirley
Black Hawk Hall 204
31-296-2329 ext.1456
Email me

You Tube

Interior Design

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Program Admission Requirements

1. Be a high school graduate or equivalent.

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, you must score at least 19 on the ACT assessment in Reading, Math, and English or take the COMPASS assessment.

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College Catalog | Next Page >

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Cindi Clark
Black Hawk Hall 177
319-296-4021
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Judy Shirley
Black Hawk Hall 204
31-296-2329 ext.1456
Email me

Interior Design

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Interior Design Careers

Our graduates work in residential design, contract design, or specialty areas such as kitchen design. They are on the staffs of design studios, furniture retailers, department stores, or one of a wide variety of businesses.

Graduates qualified by the Iowa Professional Licensing Bureau may become registered professional interior designers.

Placement

Starting Wages: $25,000 - $39,000 per year*
Graduates are paid a salary, commission, or a combination.

*Source: Iowa Workforce Development

The U.S. Bureau of Labor forecasts a 19% growth in interior design jobs through 2018, faster than the average for all other occupations.

Employers

The AR-Jay Center	Cedar Rapids, IA
Austin's Interiors and Design	Waverly, IA
Kirk Gross Company	Waterloo, IA
Office Concepts	Waterloo, IA
Pottery Barn	Chicago, IL
Tuohy Furniture, Merchandise Mart	Chicago, IL
Woodharbor Cabinetry	Urbandale, IA

Program Contacts

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

Program Advisors
Judy Shirley
Black Hawk Hall 204
31-296-2329 ext.1456
Email me

Interior Design

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Sequence of Study

Interior Design

Degree Awarded: AAA
Program Start: Fall only

View course descriptions

Semester 1		
INT101	Basic Drafting and Rendering	3
INT102	Residential Studio I	5
INT103	Design and Color Fundamentals for Interiors	3
INT106	Interior Backgrounds/Window Treatments	2
INT109	History of Interiors I	2
MAT772	Applied Math OR	3
	Math Elective	3

Total Credits 18

Semester 2		
COM781	Written Communication in the Workplace OR	3
ENG105	Composition I	3
INT133	Lighting	2
INT135	Residential Studio II	4
INT137	History of Interiors II	3
INT139	Kitchen Design	3
INT209	CAD for Interior Designers	3

Total Credits 18

Semester 3		

Program Contacts

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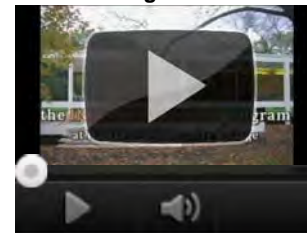Cindi Clark
Black Hawk Hall 177
319-296-4021
Email me

Program Advisors
Judy Shirley
Black Hawk Hall 204
31-296-2329 ext.1456
Email me

You Tube

Interior Design

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INT202	Contract Studio I	5
INT204	Quality Buying	2
INT239	Modern Design	2
INT300	Textiles for Interior Design	3
MKT140	Principles of Selling	3
PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3

Total Credits 18

Semester 4

INT232	Contract Studio II	5
INT233	Residential Architecture/Construction	3
INT241	Interior Design Study Tour	1
INT335	Professional Practice	3
INT932	Internship	3
SPC101	Fundamentals of Oral Communication	3

Total Credits 18

Math Electives

MAT110	Math for Liberal Arts	3
MAT122	College Algebra	5
MAT128	Precalculus	4
MAT134	Trigonometry and Analytic Geometry	3
MAT156	Statistics	3
MAT210	Calculus I	4
MAT216	Calculus II	4
MAT219	Calculus III	4

Programs Offered

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

Professional Photography

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.

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.

College Catalog | Next Page >

Program Admission Requirements

1. Be a high school graduate or equivalent.

2. <u>Apply at Hawkeye.</u>

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, you must score at least 19 on the ACT assessment in Reading, Math, and English or take the <u>COMPASS assessment</u>.

   Depending on your COMPASS scores, you may need to complete college success courses with a "C" grade or higher at Hawkeye Community College or comparable courses at another accredited college.

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Programs Offered

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

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 - $27,500 per year*

*Source: Iowa Workforce Development

Employers

Ames Tribune	Ames, IA
Cooper Image Design	Cedar Falls, IA
Deere and Company	Moline, IL
The Des Moines Register	Des Moines, IA
Meredith Corporation	Des Moines, IA
Momento Fine Art Portrait Photography	Savage, MN
Telegraph Herald	Dubuque, IA
University of Northern Iowa	Cedar Falls, IA
Waterloo-Cedar Falls Courier	Waterloo, IA

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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

Sequence of Study

Professional Photography

Degree Awarded: AAA
Program Start: Fall only

View course descriptions

Semester 1

MAT772	Applied Math OR	3
	Math Elective	3
PHT101	Analog Fundamentals of Photography	6
PHT102	Photo Design I	3
PHT103	Print Presentation Techniques	3
PHT106	Introduction to Electronic Imaging	3

Total Credits 18

Semester 2

COM781	Written Communication in the Workplace OR	3
ENG105	Composition I	3
PHT131	Basic Color Negatives and Prints	3
PHT132	Photo Design II	3
PHT134	Theory of Photography	3
PHT135	Digital Fundamentals	3
PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3

Total Credits 18

Semester 3

Programs Offered

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

PHT202	Basic Portraiture	3
PHT204	Basic Commercial Photography	3
PHT208	Basic Photojournalism	3
PHT210	Visual Communication	3
PHT212	Intermediate Electronic Imaging	3
SPC101	Fundamentals of Oral Communication	3

Total Credits 18

Semester 4

MGT110	Small Business Management	3
PHT232	Advanced Portraiture OR	6
PHT234	Advanced Commercial	6
PHT238	Advanced Photojournalism	6
	Photography Electives	9

Total Credits 18

Math Electives

MAT110	Math for Liberal Arts	3
MAT122	College Algebra	5
MAT128	Precalculus	4
MAT134	Trigonometry and Analytic Geometry	3
MAT156	Statistics	3
MAT210	Calculus I	4
MAT216	Calculus II	4
MAT219	Calculus III	4

Photography Electives

PHT232	Advanced Portraiture	6
PHT234	Advanced Commercial	6
PHT235	Techniques for Studio Promotion	3

PHT237	History of Photography	2
PHT238	Advanced Photojournalism	6
PHT242	Advanced Visual Presentations	3
PHT244	Wedding Photography	4
PHT246	Advanced Electronic Imaging	3

Complete 9 credit hours from the following courses:

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
Email me

Program Advisor N-Z
Pat Geer
Black Hawk Hall 255
319-296-2329 ext.1371
Email me

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.

Accreditation
Graduates may take the national standardized accounting exam 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.

College Catalog | Next Page >

Program Admission Requirements

1. Be a high school graduate or equivalent.

2. Apply at Hawkeye.

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

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Department Secretary
Cindi Clark
Black Hawk Hall 177
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Email me

Program Advisor A-M
Jenny Brehm
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Program Advisor N-Z
Pat Geer
Black Hawk Hall 255
319-296-2329 ext.1371
Email me

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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: $21,000 – $31,000 per year*

*Source: Iowa Workforce Development

Employers

Advanced Systems, Inc	Waterloo, IA
Gray Transportation	Waterloo, IA
Harrison Truck Centers	Waterloo, IA
Hellman Associates, Inc.	Waterloo, IA
Isle of Capri	Waterloo, IA
Paul R. Nielsen Co. PC	Cedar Falls, IA
RSM McGladrey	Waterloo, IA
The Principal Financial Group	Waterloo, IA

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

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Jenny Brehm
Black Hawk Hall 256
319-296-2329 ext.1747
Email me

Program Advisor N-Z
Pat Geer
Black Hawk Hall 255
319-296-2329 ext.1371
Email me

Sequence of Study

| Accounting | Accounting Technician |

Degree Awarded: AAS
Program Start: Fall, Spring, and Summer

View course descriptions

Semester 1

ACC115	Introduction to Accounting OR	4
ACC131	Principles of Accounting I	4
ADM131	Office Calculators	1
BCA134	Word Processing	3
COM781	Written Communication in the Workplace OR	3
ENG105	Composition I	3
MAT772	Applied Math OR	3
	Math Elective	3
PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3

Total Credits 17

Semester 2

ACC116	Introduction to Accounting II OR	4
ACC132	Principles of Accounting II	4
ACC265	Income Tax Accounting	4
ACC311	Computer Accounting	3
ACC801	Payroll Accounting	1
ACC803	Accounting Simulations	1
BCA205	Database/Spreadsheets	3

Total Credits 16

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
Email me

Program Advisor N-Z
Pat Geer
Black Hawk Hall 255
319-296-2329 ext.1371
Email me

Semester 3		
ACC222	Cost Accounting	4
ACC231	Intermediate Accounting I	4
BUS102	Introduction to Business OR	3
BUS180	Business Ethics OR	3
BUS183	Business Law	3
ECN120	Principles of Macroeconomics OR	3
ECN110	Introduction to Economics	3
SPC101	Fundamentals of Oral Communication	3

Total Credits 17

Semester 4		
ACC190	Financial Analysis	2
ACC232	Intermediate Accounting II	4
ACC250	Review for the LPA Exam	3
ACC360	Accounting Spreadsheets	2
ADM222	Career Capstone	3

Total Credits 14

Math Electives		
MAT110	Math for Liberal Arts	3
MAT122	College Algebra	5
MAT128	Precalculus	4
MAT134	Trigonometry and Analytic Geometry	3
MAT156	Statistics	3
MAT210	Calculus I	4
MAT216	Calculus II	4
MAT219	Calculus III	4

Sequence of Study

| Accounting | Accounting Technician |

Degree Awarded: Diploma
Program Start: Fall, Spring, and Summer

View course descriptions

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
Email me

Program Advisor N-Z
Pat Geer
Black Hawk Hall 255
319-296-2329 ext.1371
Email me

Semester 1

ACC115	Introduction to Accounting OR	4
ACC131	Principles of Accounting I	4
ADM131	Office Calculators	1
BCA134	Word Processing	3
COM781	Written Communication in the Workplace OR	3
ENG105	Composition I	3
MAT772	Applied Math OR	3
	Math Elective	3
PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3

Total Credits 17

Semester 2

ACC116	Introduction to Accounting II OR	4
ACC132	Principles of Accounting II	4
ACC265	Income Tax Accounting	4
ACC311	Computer Accounting	3
ACC801	Payroll Accounting	1
ACC803	Accounting Simulations	1
BCA205	Database/Spreadsheets	3

Total Credits 16

Math Electives		
MAT 110	Math for Liberal Arts	3
MAT 122	College Algebra	5
MAT 128	Precalculus	4
MAT 134	Trigonometry and Analytic Geometry	3
MAT 156	Statistics	3
MAT 210	Calculus I	4
MAT 216	Calculus II	4
MAT 219	Calculus III	4

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
Email me

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

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.

Organizations

Students in the Business department can become members of International Association of Administrative Professionals (IAAP). Through the IAAP student chapter, students learn and practice leadership, teamwork, organization, and communication skills. The Victory Chapter of IAAP also awards qualifying student IAAP members scholarships each year.

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.

Program Admission Requirements

1. Be a high school graduate or equivalent.

2. Apply at Hawkeye.

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

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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
Email me

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

Careers

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

Placement

Starting Wages: $27,500 - $39,000 per year*

Iowa Workforce Development forecasts more than 340 job openings each year for Office Managers and Administrative workers through 2014.

*Source: Iowa Workforce Development

Employers

CUNA Mutual	Waverly, IA
Kirkwood Community College	Cedar Rapids, IA
Veridian Credit Union	Waterloo, IA
Waterloo - Cedar Falls Courier	Waterloo, IA
Waterloo Credit Bureau	Waterloo, IA

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
Email me

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

Sequence of Study

| Executive Assistant | Administrative Assistant | Office Assistant |

Degree Awarded: AAS
Program Start: Fall, Spring, and Summer

View course descriptions

Semester 1

ADM105	Introduction to Keyboarding	1
ADM159	Proofreading and Editing	3
BCA134	Word Processing	3
BUS102	Introduction to Business	3
MAT772	Applied Math OR	3
	Math Elective	3
PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3

Total Credits 16

Semester 2

ACC115	Introduction to Accounting OR	4
ACC131	Principles of Accounting I	4
ADM108	Keyboarding Skill Development	1
ADM148	Transcription	2
BCA205	Database/Spreadsheets	3
ENG105	Composition I	3
SPC101	Fundamentals of Oral Communication	3

Total Credits 16

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
Email me

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

Semester 3

ACC801	Payroll Accounting	1
ADM131	Office Calculators	1
ADM162	Office Procedures	3
ADM180	Administrative Management	3
BCA132	Electronic Communications	3
BCA213	Intermediate Computer Business Applications	3
BUS183	Business Law	3

Total Credits 17

Semester 4

ADM203	Legal Office Concepts and Procedures OR	3
ADM208	Legal Terminology OR	3
ADM200	Legal Document Processing	3
ADM222	Career Capstone	3
BUS180	Business Ethics	3
BUS903	Business Field Experience	3
ECN120	Principles of Macroeconomics OR	3
ECN110	Introduction to Economics	3

Total Credits 15

Math Electives

MAT110	Math for Liberal Arts	3
MAT122	College Algebra	5
MAT128	Precalculus	4
MAT134	Trigonometry and Analytic Geometry	3
MAT156	Statistics	3
MAT210	Calculus I	4
MAT216	Calculus II	4
MAT219	Calculus III	4

Sequence of Study

Executive Assistant	Administrative Assistant	Office Assistant

Degree Awarded: Diploma
Program Start: Fall, Spring, and Summer

View course descriptions

Semester 1

ADM105	Introduction to Keyboarding	1
ADM159	Proofreading and Editing	3
BCA134	Word Processing	3
MAT772	Applied Math OR	3
	Math Elective	3
PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3

Total Credits 13

Semester 2

ACC115	Introduction to Accounting OR	4
ACC131	Principles of Accounting I	4
ADM108	Keyboarding Skill Development	1
ADM148	Transcription	2
BCA205	Database/Spreadsheets	3
ENG105	Composition I	3
SPC101	Fundamentals of Oral Communication	3

Total Credits 16

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
Email me

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

Semester 3		
ADM131	Office Calculators	1
ADM162	Office Procedures	3
ADM180	Administrative Management	3
BCA132	Electronic Communications	3
BCA213	Intermediate Computer Business Applications	3

Total Credits 13

Semester 4		
ADM222	Career Capstone	3
BUS903	Business Field Experience	3

Total Credits 6

Math Electives		
MAT110	Math for Liberal Arts	3
MAT122	College Algebra	5
MAT128	Precalculus	4
MAT134	Trigonometry and Analytic Geometry	3
MAT156	Statistics	3
MAT210	Calculus I	4
MAT216	Calculus II	4
MAT219	Calculus III	4

Sequence of Study

Executive Assistant	Administrative Assistant	Office Assistant

Degree Awarded: Certificate
Program Start: Fall, Spring, and Summer

View course descriptions

Semester 1

ADM105	Introduction to Keyboarding	1
ADM159	Proofreading and Editing	3
BCA134	Word Processing	3
MAT772	Applied Math	3
PSY102	Human & Work Relations	3

Total Credits 13

Semester 2

ACC115	Introduction to Accounting OR	4
ACC131	Principles of Accounting I	4
BCA205	Database/Spreadsheets	3
ENG105	Composition I	3
SPC101	Fundamentals of Oral Communication	3

Total Credits 13

Semester 3

ADM131	Office Calculators	1
ADM162	Office Procedures	3
BCA132	Electronic Communications	3

Total Credits 7

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
Email me

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

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
Email me

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

Executive Assistant - Legal Office Assistant Option

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 office procedures, legal transcription, legal terminology, and legal document production.

Organizations

Students in the Business department can become members of International Association of Administrative Professionals (IAAP). Through the IAAP student chapter, students learn and practice leadership, teamwork, organization, and communication skills. The Victory Chapter of IAAP also awards qualifying student IAAP members scholarships each year.

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.

Program Admission Requirements

1. Be a high school graduate or equivalent.

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.

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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
Email me

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

Careers

Graduates find employment in law firms, legal divisions of large businesses, and federal and state government offices.

Placement

Starting Wages: $25,000- $34,000 per year

Legal secretary is one of the fastest growing occupations in Iowa.

*Source: Iowa Workforce Development

Employers

Beecher Law Firm	Waterloo, IA
Iowa Workforce Development Center	Waterloo, IA
Redfern, Mason, Dieter, Larsen and Moore	Cedar Falls, IA
Swisher and Cohrt	Waterloo, IA

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
Email me

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

Sequence of Study

Legal Office Assistant

Degree Awarded: AAS
Program Start: Fall, Spring, and Summer

View course descriptions

Semester 1

ADM105	Introduction to Keyboarding	1
ADM159	Proofreading and Editing	3
BCA134	Word Processing	3
BUS102	Introduction to Business	3
MAT772	Applied Math OR	3
	Math Elective	3
PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3

Total Credits 16

Semester 2

ACC115	Introduction to Accounting OR	4
ACC131	Principles of Accounting I	4
ADM108	Keyboarding Skill Development	1
ADM148	Transcription	2
BCA205	Database/Spreadsheets	3
ENG105	Composition I	3
SPC101	Fundamentals of Oral Communication	3

Total Credits 16

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
Email me

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

Semester 3

ADM131	Office Calculators	1
ADM180	Administrative Management	3
ADM200	Legal Document Processing	3
BCA132	Electronic Communications	3
BCA213	Intermediate Computer Business Applications	3
BUS183	Business Law	3

Total Credits 16

Semester 4

ADM203	Legal Office Concepts and Procedures	3
ADM208	Legal Terminology	3
ADM222	Career Capstone	3
BUS180	Business Ethics	3
BUS903	Business Field Experience	3

Total Credits 15

Math Electives

MAT110	Math for Liberal Arts	3
MAT122	College Algebra	5
MAT128	Precalculus	4
MAT134	Trigonometry and Analytic Geometry	3
MAT156	Statistics	3
MAT210	Calculus I	4
MAT216	Calculus II	4
MAT219	Calculus III	4

Program Contacts

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

Program Advisor
Karen Reynolds
Black Hawk Hall 184
319-296-2329 ext.1380
Email me

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 resouces 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 transfer programs of Business Administration and General Business 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.

HAWKEYE
COMMUNITY COLLEGE

Program Admission Requirements

1. Be a high school graduate or equivalent.

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, you must score at least 19 on the ACT assessment in Reading, Math, and English or take the COMPASS assessment.

   Depending on your COMPASS scores, you may need to complete college success courses with a "C" grade or higher at Hawkeye Community College or comparable courses at another accredited college.

   Assessment may be waived based on courses taken, credits earned, and grades received at a previous college. Please send your official college transcripts to the Admissions office for evaluation.

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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

Placement

Starting Wages - $27,000 - $36,000 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

Program Contacts

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

Program Advisor
Karen Reynolds
Black Hawk Hall 184
319-296-2329 ext.1380
Email me

Sequence of Study

Human Resource Management

Degree Awarded: AAS
Program Start: Fall, Spring, and Summer

View course descriptions

Semester 1

BUS102	Introduction to Business	3
ENG105	Composition I	3
MAT110	Math for Liberal Arts OR Math Elective	3 3
MGT101	Principles of Management	3
PSY111	Introduction to Psychology	3

Total Credits 15

Semester 2

CSC110	Introduction to Computers	3
ECN120 ECN130	Principles of Macroeconomics OR Principles of Microeconomics	3 3
FIN121	Personal Finance	3
MGT170	Human Resource Management	3
MGT174	Training and Employee Development	3
SPC101	Fundamentals of Oral Communication	3

Total Credits 18

Semester 3

ACC131	Principles of Accounting I	4

BUS180	Business Ethics	3
BUS183	Business Law	3
MGT177	Staffing	3
MGT180	Management and Labor Relations	3

Total Credits 16

Semester 4		
ADM222	Career Capstone	3
BUS220	Introduction to International Business	3
MGT142	Problems and Issues in Supervision and Management	3
MGT178	Employment Law	3
MGT190	Employee Compensation and Benefits Management	3

Total Credits 15

Math Electives		
MAT122	College Algebra	5
MAT128	Precalculus	4
MAT134	Trigonometry and Analytic Geometry	3
MAT156	Statistics	3
MAT210	Calculus I	4
MAT216	Calculus II	4
MAT219	Calculus III	4

Program Contacts

Department Secretary
Cindi Clark
Black Hawk Hall 222
319-296-4021
Email me

Program Advisor
Mark Ryan
Black Hawk Hall 262
319-296-2329 ext.1307
Email me

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 transfer programs of Business Administration and General Business 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.

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Program Admission Requirements

1. Be a high school graduate or equivalent.

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, you must score at least 19 on the ACT assessment in Reading, Math, and English or take the COMPASS assessment.

   Depending on your COMPASS scores, you may need to complete college success courses with a "C" grade or higher at Hawkeye Community College or comparable courses at another accredited college.

   Assessment may be waived based on courses taken, credits earned, and grades received at a previous college. Please send your official college transcripts to the Admissions office for evaluation.

Program Contacts

Department Secretary
Cindi Clark
Black Hawk Hall 222
319-296-4021
Email me

Program Advisor
Mark Ryan
Black Hawk Hall 262
319-296-2329 ext.1307
Email me

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: $23,500- $38,000 per year*

Iowa Workforce Development forecasts more than 570 job openings each year for entry-level managers through 2018.

Graduates may earn a salary, be commissioned-based, or be a combination of salary and commission.

*Source: Iowa Workforce Development

Employers

American National	Waterloo, IA
CBE Group	Waterloo, IA
GMAC	Waterloo, IA
Hy-Vee Food Stores	Waterloo, IA
Norwest Card Services	Des Moines, IA
Parts Company of America	Waterloo, IA
VGM Group	Waterloo, IA

Program Contacts

Department Secretary
Cindi Clark
Black Hawk Hall 222
319-296-4021
Email me

Program Advisor
Mark Ryan
Black Hawk Hall 262
319-296-2329 ext.1307
Email me

Sequence of Study

Marketing Management

Degree Awarded: AAS
Program Start: Fall, Spring, and Summer

View course descriptions

Semester 1

BUS102	Introduction to Business	3
ENG105	Composition I OR	3
COM781	Written Communication in the Workplace	3
MAT772	Applied Math OR	3
	Math Elective	3
MKT110	Principles of Marketing	3
PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3

Total Credits 15

Semester 2

CSC110	Introduction to Computers	3
MKT140	Principles of Selling	3
MKT160	Principles of Retailing	3
SPC101	Fundamentals of Oral Communication	3
	Electives	6

Total Credits 18

Semester 3

Program Contacts

Department Secretary
Cindi Clark
Black Hawk Hall 222
319-296-4021
Email me

Program Advisor
Mark Ryan
Black Hawk Hall 262
319-296-2329 ext.1307
Email me

ACC115	Introduction to Accounting OR	4
ACC131	Principles of Accounting I	4
BUS183	Business Law	3
MGT101	Principles of Management	3
	Electives	6

Total Credits 16

Semester 4		
ADM222	Career Capstone	3
MGT170	Human Resource Management	3
MKT152	Advertising and Visual Merchandising	3
	Electives	7

Total Credits 16

Math Electives		
MAT110	Math for Liberal Arts	3
MAT122	College Algebra	5
MAT128	Precalculus	4
MAT134	Trigonometry and Analytic Geometry	3
MAT156	Statistics	3
MAT210	Calculus I	4
MAT216	Calculus II	4
MAT219	Calculus III	4

Electives		
ACC116	Introduction to Accounting II	4
ACC132	Principles of Accounting II	4
ADM105	Introduction to Keyboarding	1
BCA132	Electronic Communications	3
BCA134	Word Processing	3

BUS180	Business Ethics	3
BUS220	Introduction to International Business	3
BUS903	Business Field Experience	3
ECN110	Introduction to Economics	3
ECN120	Principles of Macroeconomics	3
ECN130	Principles of Microeconomics	3
ENG106	Composition II	3
FIN121	Personal Finance	3
MGT110	Small Business Management	3
MGT210	Management Decision Making	3
MKT142	Consumer Behavior	3

Program Contacts

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

Program Advisor (A-M)
Bea Gobeski
Black Hawk Hall 252
319-296-2329 ext.1373
Email me

Program Advisor (N-Z)
Dee Ulrich
Black Hawk Hall 257
319-296-2329 ext.1756
Email me

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.

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Program Admission Requirements

1. Be a high school graduate or equivalent.

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, you must score at least 19 on the ACT assessment in Reading, Math, and English or take the COMPASS assessment.

   Depending on your COMPASS scores, you may need to complete college success courses with a "C" grade or higher at Hawkeye Community College or comparable courses at another accredited college.

   Assessment may be waived based on courses taken, credits earned, and grades received at a previous college. Please send your official college transcripts to the Admissions office for evaluation.

Program Contacts

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

Program Advisor (A-M)
Bea Gobeski
Black Hawk Hall 252
319-296-2329 ext.1373
Email me

Program Advisor (N-Z)
Dee Ulrich
Black Hawk Hall 257
319-296-2329 ext.1756
Email me

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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: $21,000 - $29,000 per year*

*Source: Iowa Workforce Development

Employers

Allen Memorial Hospital	Waterloo, IA
American Home Patient	Waterloo, IA
Cedar Valley Medical Specialists PC	Waterloo, IA
Covenant Clinics	Waterloo, IA
E & C Insurance	Des Moines, IA

Program Contacts

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

Program Advisor (A-M)
Bea Gobeski
Black Hawk Hall 252
319-296-2329 ext.1373
Email me

Program Advisor (N-Z)
Dee Ulrich
Black Hawk Hall 257
319-296-2329 ext.1756
Email me

Sequence of Study

Medical Administrative Assistant | **Medical Secretary**

Degree Awarded: AAS
Program Start: Fall, Spring, and Summer

View course descriptions

Semester 1

ADM105	Introduction to Keyboarding	1
ADM159	Proofreading and Editing	3
BCA134	Word Processing	3
HIT245	Basic ICD-9-CM Coding	3
HSC116	Beginning Medical Terminology	4
MAT772	Applied Math OR	3
	Math Elective	3

Total Credits 17

Semester 2

ACC111	Introduction to Accounting OR	3
ACC115	Introduction to Accounting OR	4
ACC131	Principles of Accounting I	4
ADM108	Keyboarding Skill Development	1
ADM148	Transcription	2
BCA205	Database/Spreadsheets	3
HSC124	Advanced Medical Terminology	4
MAP141	Medical Insurance	3

Total Credits 16

Program Contacts

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

Program Advisor (A-M)
Bea Gobeski
Black Hawk Hall 252
319-296-2329 ext.1373
Email me

Program Advisor (N-Z)
Dee Ulrich
Black Hawk Hall 257
319-296-2329 ext.1756
Email me

Semester 3		
BCA213	Intermediate Computer Business Applications	3
ENG105	Composition I	3
MAP123	Administrative Medical Office Procedures	3
MAP132	Medical Transcription	2
MAP152	Computer Patient Billing	2
SPC101	Fundamentals of Oral Communication	3

Total Credits 16

Semester 4		
ADM180	Administrative Management	3
ADM222	Career Capstone	3
BUS183	Business Law	3
BUS903	Business Field Experience	3
MAP511	Pharmacology for the Medical Secretary	1
PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3

Total Credits 16

Math Electives		
MAT110	Math for Liberal Arts	3
MAT122	College Algebra	5
MAT128	Precalculus	4
MAT134	Trigonometry and Analytic Geometry	3
MAT156	Statistics	3
MAT210	Calculus I	4
MAT216	Calculus II	4
MAT219	Calculus III	4

Sequence of Study

Medical Administrative Assistant	Medical Secretary

Degree Awarded: Diploma
Program Start: Fall, Spring, and Summer

View course descriptions

Prerequisite Courses

ADM105	Introduction to Keyboarding	1
BCA134	Word Processing	3

Total Credits 4

Semester 1

ADM159	Proofreading and Editing	3
HIT245	Basic ICD-9-CM Coding	3
HSC116	Beginning Medical Terminology	4
MAT772	Applied Math OR	3
	Math Elective	3

Total Credits 13

Semester 2

ADM108	Keyboarding Skill Development	1
ADM148	Transcription	2
BCA205	Database/Spreadsheets	3
HSC124	Advanced Medical Terminology	4
MAP141	Medical Insurance	3

Total Credits 13

Program Contacts

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

Program Advisor (A-M)
Bea Gobeski
Black Hawk Hall 252
319-296-2329 ext.1373
Email me

Program Advisor (N-Z)
Dee Ulrich
Black Hawk Hall 257
319-296-2329 ext.1756
Email me

Semester 3		
ADM222	Career Capstone	3
BCA213	Intermediate Computer Business Applications	3
MAP123	Administrative Medical Office Procedures	3
MAP132	Medical Transcription	2
MAP152	Computer Patient Billing	2
MAP511	Pharmacology for the Medical Secretary	1
PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3
SPC101	Fundamentals of Oral Communication	3

Total Credits 20

Math Electives		
MAT110	Math for Liberal Arts	3
MAT122	College Algebra	5
MAT128	Precalculus	4
MAT134	Trigonometry and Analytic Geometry	3
MAT156	Statistics	3
MAT210	Calculus I	4
MAT216	Calculus II	4
MAT219	Calculus III	4

Program Contacts

Department Secretary
Becky Lauritsen
Grundy Hall 159
319-296-4013
Email me

Dean
Sarah Turner
Grundy Hall 159
319-296-4432
Email me

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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.

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Program Admission Requirements

1. Before your Admission Application will be processed for the Associate Degree Nursing program you must:

   a. <u>be fully accepted into the Practical Nursing program</u>,
   b. have at least <u>one semester completed in Practical Nursing</u>,
   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 an 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

Cumulative Practical Nursing GPA 3.50 or higher	4 pts.
Cumulative Practical Nursing GPA 3.00 - 3.49	3 pts.
Cumulative Practical Nursing GPA 2.80 - 2.99	1 pt.
Cumulative Practical Nursing GPA 2.70 - 2.79	0 pts.
ACT Composite of 22 or higher	1 pt.
Hawkeye Community College Practical Nursing Graduate	1 pt.
Master of Arts or Master of Science Degree OR	3 pts.
Bachelor of Arts or Bachelor of Science Degree OR	2 pts.

Program Contacts

Department Secretary
Becky Lauritsen
Grundy Hall 159
319-296-4013
Email me

Dean
Sarah Turner
Grundy Hall 159
319-296-4432
Email me

You Tube

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Associate in Arts or Associate in Science Degree OR	1 pt.
Associate in Applied Arts or Associate in 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. Send your transcripts and test scores to the Admissions office.

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.

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, you may delay your acceptance for a maximum of one year before being placed back on the wait list.

Hawkeye's Equal Opportunity Statement

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

Placement

Starting Wages - $40,000 - $52,500 per year*

Registered Nursing is the largest healthcare profession with more than 2.3 million jobs nationwide. Iowa Workforce Development forecasts more than 1270 job openings each year for registered nurses though 2018.

Registered Nursing is one of the top occupations in Iowa with the most job openings.

*Source: Iowa Workforce Development

Employers

Allen Memorial Hospital	Waterloo, IA
Mayo Clinic	Rochester, MN
University of Iowa Hospitals & Clinics	Iowa City, IA
Waverly Health Center	Waverly, IA
Wheaton Franciscan Hospitals	Waterloo, IA Cedar Falls, IA

Program Contacts

Department Secretary
Becky Lauritsen
Grundy Hall 159
319-296-4013
Email me

Dean
Sarah Turner
Grundy Hall 159
319-296-4432
Email me

You Tube

SimBaby Simulator

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Learn more about the SimBaby Simulator.

Sequence of Study

Associate Degree Nursing

Degree Awarded: AAS
Program Start: Fall and Spring

View course descriptions

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.

You must achieve a minimum "C" grade in all courses that are required to complete the program.

Semester 1		
ADN121	Transition to Professional Nursing	2
ADN122	Advanced Nursing Skills	2
ADN123	Physical Assessment	2
ADN281	Diet Management	1
ADN531	Advanced Adult Health Nursing I	6
BIO163	Essentials of Anatomy and Physiology OR	4
BIO168	Human Anatomy and Physiology I w/lab AND	4
BIO173	Human Anatomy and Physiology II w/lab	4

Total Credits 17

Semester 2		
ADN331	Issues in Nursing Management	2
ADN410	Advanced Nursing in OB and PEDS	5
ADN532	Advanced Adult Health Nursing II	6

Program Contacts

Department Secretary
Becky Lauritsen
Grundy Hall 159
319-296-4013
Email me

Dean
Sarah Turner
Grundy Hall 159
319-296-4432
Email me

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BIO185	Microbiology w/lab*	3
SPC101	Fundamentals of Oral Communication*	3

Total Credits 19

Semester 3

ADN477	Psychiatric Nursing	5
SOC110	Introduction to Sociology*	3

Total Credits 8

* General education courses students may complete before full acceptance into the Associate Degree Nursing program.

Program Contacts

Department Secretary
Becky Lauritsen
Grundy Hall 159
319-296-4013
Email me

Program Advisor
Suzanne Van Syoc
Grundy Hall 158
 319-296-2329 ext.1355
Email me

Dean
Sarah Turner
Grundy Hall 159
319-296-4432
Email me

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 new state-of-the-art Dental Clinic featuring 18 patient chairs, computerized patient record software, wireless computer stations, 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.

Program Admission Requirements

1. Be a high school graduate or equivalent.

2. <u>Apply at Hawkeye.</u>

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 admission into the Dental Assisting program, you must score at least the following sub scores on the ACT or the COMPASS assessment:

   ACT sub scores

   - 19 - Reading
   - 19 - English
   - 19 - Math

   COMPASS scores

   - 82 - Reading
   - 41 - Writing
   - Basic Skills Competency in Math

   OR

   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

   OR

   Any combination of the above options fulfilling the basic skills requirements in reading, writing, and math.

Admissions Process

1. Send your transcripts and test scores to the <u>Admissions office</u>.

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 inactivated and will be sent an Admissions Inactivation Letter.

   b. Applicants who meet 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 on the date their applicant file was completed. If many students share the same date for completing their applicant file, the date you submitted your application, if needed, will be used to prioritize acceptance.

Program Contacts

Department Secretary
Becky Lauritsen
Grundy Hall 159
319-296-4013
Email me

Program Advisor
Suzanne Van Syoc
Grundy Hall 158
319-296-2329 ext.1355
Email me

Dean
Sarah Turner
Grundy Hall 159
319-296-4432
Email me

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

Hawkeye's Equal Opportunity Statement

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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 - $26,000 - $33,500 per year*

*Source: Iowa Workforce Development

Employers

Dr. Anne Hennessey	Cedar Falls, IA
Kimball & Beecher Family Dentistry	Waterloo, IA
Dr. John Spragg	Waterloo, IA
Foster Oral Surgery/Dr. Edwin King	Waterloo, IA
Only Kids Dentistry/Dr. Jyoti Chawdury	Waterloo, IA
People's Dental Clinic	Waterloo, IA

Program Contacts

Department Secretary
Becky Lauritsen
Grundy Hall 159
319-296-4013
Email me

Program Advisor
Suzanne Van Syoc
Grundy Hall 158
 319-296-2329 ext.1355
Email me

Dean
Sarah Turner
Grundy Hall 159
319-296-4432
Email me

Sequence of Study

Dental Assisting

Degree Awarded: Diploma
Program Start: Fall only

View course descriptions

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.

You must achieve a minimum "C" grade in all courses that are required to complete the program.

Semester 1		
BIO159	Fundamentals of Anatomy & Physiology	3
DEA103	Orientation to Dental Assisting	2
DEA258	Dental Anatomy	4
DEA302	Dental Radiography	3
DEA412	Dental Materials I	3
DEA513	Chairside Assisting I	4

Total Credits 19

Semester 2		
COM730	Communications OR	3
ENG105	Composition I AND	3
SPC101	Fundamentals of Oral Communication	3
DEA263	Dental Science II	2
DEA417	Dental Materials II	2

DEA514	Chairside Assisting II	2
DEA556	Assisting Clinic I	4
DEA603	Dental Specialties	2
DEA702	Dental Office Procedures	2

Total Credits 17

Semester 3		
DEA557	Assisting Clinic II	3
DEA595	Career Strategies and Seminar	2
PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3

Total Credits 8

Program Contacts

Department Secretary
Becky Lauritsen
Grundy Hall 159
319-296-4013
Email me

Program Advisor
Tonya Enright
319-296-2329 ext.1121
Email me

Dean
Sarah Turner
Grundy Hall 159
319-296-4432
Email me

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, wireless computer stations, 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. Please keep in mind, 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.

Commission on Dental Accreditation
American Dental Association
211 East Chicago Avenue

Chicago, IL 60611
312-440-4653

Transfer Information

Students in the Dental Hygiene program interested in continuing their education should contact a program advisor.

Program Admission Requirements

1. Be a high school graduate or equivalent.

2. <u>Apply at Hawkeye.</u>

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 admission into the Dental Hygiene program, you must score at least the following sub scores on the ACT or the COMPASS assessment:

   ACT sub scores

   - 19 - Math
   - 19 - Reading
   - 19 - English

   COMPASS scores

   - 42 - Algebra
   - 82 - Reading
   - 65 - Writing

   OR

   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
   - MAT063 Elementary Algebra
   - RDG040 College Preparatory Reading III

4. For full acceptance into the Dental Hygiene program, you must <u>successfully complete program prerequisites</u> with a grade of "C" or higher. Applicants must have at least a 2.75 cumulative GPA (on a 4 point scale) with the six program prerequisites.

Additional Requirements Before You Start the Program

- A personal interview or program orientation session and job shadow experience may be required.

- You must be Health Care Provider level CPR certified and have a physical exam with immunization record on Hawkeye Community College form, prior to the first day of classes.

- We strongly advise you to complete all of the general education courses within the <u>program sequence of study</u> prior to full admission into the program. These courses are marked with an asterisk (*).

Admissions Process

1. Admissions applicant files are processed in March of each year for the following Fall Semester

Program Contacts

Department Secretary
Becky Lauritsen
Grundy Hall 159
319-296-4013
Email me

Program Advisor
Tonya Enright
319-296-2329 ext.1121
Email me

Dean
Sarah Turner
Grundy Hall 159
319-296-4432
Email me

class provided the applicant is of senior high school status or older.

2. Send your transcripts and test scores to the Admissions office.

3. 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 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.

4. We accept approximately 22 students 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 date you submitted your application, if needed, will be used to prioritize acceptance.

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

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 - $56,000 - $64,000 per year

Dental hygiene is one of the fastest growing occupations in Iowa.

*Source: Iowa Workforce Development

Employers

Dental Associates of Manchester	Manchester, IA
Dental Professionals	Indianola, IA
Kimball & Beecher Family Dentistry	Waterloo, IA
Dyersville Dental Center	Dyersville, IA
Krista Lynn Berryhill, DDS	Manchester, IA

Program Contacts

Department Secretary
Becky Lauritsen
Grundy Hall 159
319-296-4013
Email me

Program Advisor
Tonya Enright
319-296-2329 ext.1121
Email me

Dean
Sarah Turner
Grundy Hall 159
319-296-4432
Email me

Sequence of Study

Dental Hygiene

Degree Awarded: AAS
Program Start: Fall only

View course descriptions

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.

You must achieve a minimum "C" grade in all courses that are required to complete the program.

Prerequisite Courses		
BIO168	Human Anatomy and Physiology I w/lab	4
BIO173	Human Anatomy and Physiology II w/lab	4
BIO185	Microbiology w/lab	3
CHM122	Introduction to General Chemistry	4
CHM132	Introduction to Organic and Biochemistry	4
HSC113	Medical Terminology for Health Sciences	2

Total Credits 21

Semester 1		
DHY115	Head & Neck Anatomy for Dental Hygienist	2
DHY116	Tooth Morphology	1
DHY121	Oral Histology & Embryology	2
DHY162	Oral Radiology	2

Program Contacts

Department Secretary
Becky Lauritsen
Grundy Hall 159
319-296-4013
Email me

Program Advisor
Tonya Enright
319-296-2329 ext.1121
Email me

Dean
Sarah Turner
Grundy Hall 159
319-296-4432
Email me

DHY175	Fundamentals of Clinical Dental Hygiene	6

Total Credits 13

Semester 2

DHY141	General and Oral Pathology	3
DHY187	Clinical Dental Hygiene II	3
DHY188	Clinical Dental Hygiene II Seminar	1
DHY210	Introduction to Periodontology	1
DHY222	Biomaterials for the Dental Hygienist	3
DHY240	Ethics and Jurisprudence	1
DHY260	Oral Health Education	2

Total Credits 14

Semester 3 - Summer

PSY111	Introduction to Psychology*	3
SOC110	Introduction to Sociology*	3

Total Credits 6

Semester 4

BIO151	Nutrition*	3
DHY131	Pharmacology	2
DHY211	Periodontology	2
DHY254	Community Oral Health I	2
DHY271	Pain Control	2
DHY297	Clinical Dental Hygiene III	4
DHY298	Clinical Dental Hygiene III Seminar	2

Total Credits 17

Semester 5

DHY255	Community Oral Health II	2

DHY272	Interdisciplinary Health Care	2
DHY307	Clinical Dental Hygiene IV	4
DHY308	Clinical Dental Hygiene IV Seminar	1
ENG105	Composition I*	3
SPC101	Fundamentals of Oral Communication*	3

Total Credits 15

*General education courses that can be completed before full admittance into the program.

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Program Contacts
Department Secretary
Becky Lauritsen
Grundy Hall 159
319-296-4013
Email me

Program Advisor
Amy Kapanka
Cedar Falls Center 112
319-296-2329 ext.1357
Email me

Dean
Sarah Turner
Grundy Hall 159
319-296-4432
Email me

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 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

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
Rosemont, IL 60018-5119
773-714-8880

Transfer Information
Students in the Medical Laboratory Technology program interested in continuing their education should contact a program advisor.

Program Admission Requirements

1. Be a high school graduate or equivalent.

2. Apply at Hawkeye.

3. Meet basic skill competencies in reading, writing, and math; and complete one year of high school Biology with a "C" grade or higher in each semester.

   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 admission into the Medical Laboratory Technology program, you must score at least the following sub scores on the ACT or the COMPASS assessment:

   ACT sub scores

   - 19 - Math
   - 19 - Reading
   - 19 - English

   COMPASS scores

   - 42 - Algebra
   - 82 - Reading
   - 65 - Writing

   OR

   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
   - BIO041 Pre-Technical Biology

   OR

   Any combination of the above fulfilling the basic skills requirements in algebra, reading, writing, and biology.

Admissions Process

1. Send your transcripts and test scores to the Admissions office.

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 inactivated and will be sent an Admissions Inactivation Letter.

   b. Applicants who meet the program's admission requirements will be accepted.

3. We accept approximately 24 students and 10 alternates each Fall and Spring semester.

Program Contacts

Department Secretary
Becky Lauritsen
Grundy Hall 159
319-296-4013
Email me

Program Advisor
Amy Kapanka
Cedar Falls Center 112
319-296-2329 ext.1357
Email me

Dean
Sarah Turner
Grundy Hall 159
319-296-4432
Email me

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 date you submitted your application, if needed, will be used to prioritize acceptance.

4. Alternates will be contacted to fill unconfirmed positions in the program and will be given priority for the next semester.

Hawkeye's Equal Opportunity Statement

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 MLTs 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: $26,000 - $37,000 per year*

*Source: Iowa Workforce Development

Employers

Allen Memorial Hospital	Waterloo, IA
Mercy Hospital	Iowa City, IA
Mercy Medical Center - North Iowa	Mason City, IA
United Clinical Labs	Dubuque, IA
Wheaton Franciscan Hospitals	Waterloo, IA Cedar Falls, IA

Program Contacts

Department Secretary
Becky Lauritsen
Grundy Hall 159
319-296-4013
Email me

Program Advisor
Amy Kapanka
Cedar Falls Center 112
319-296-2329 ext.1357
Email me

Dean
Sarah Turner
Grundy Hall 159
319-296-4432
Email me

Sequence of Study

Medical Laboratory Technology

Degree Awarded: AAS
Program Start: Fall and Spring

View course descriptions

Program Contacts

Department Secretary
Becky Lauritsen
Grundy Hall 159
319-296-4013
Email me

Program Advisor
Amy Kapanka
Cedar Falls Center 112
319-296-2329 ext.1357
Email me

Dean
Sarah Turner
Grundy Hall 159
319-296-4432
Email me

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.

You must achieve a minimum "C" grade in all courses required to complete the program.

* Courses you may take prior to full acceptance to the Medical Laboratory Technology program if you meet Hawkeye's general admission requirements.

Semester 1 - Fall		
BIO163	Essentials of Anatomy and Physiology	4
CHM122	Introduction to General Chemistry	4
MLT101	Introduction to Lab Science *	2
PSY111	Introduction to Psychology	3
SOC110	Introduction to Sociology OR	3
SPC101	Fundamentals of Oral Communication	3

Total Credits 16

Semester 2 - Spring		
BIO113	General Biology II OR	4
CHM132	Introduction to Organic and Biochemistry	4
BIO185	Microbiology w/lab	3

ENG105	Composition I	3
HSC113	Medical Terminology for Health Sciences*	2
MLT103	Lab Mathematics *	3
MLT120	Urinalysis*	3

Total Credits 18

Semester 3 - Summer

MLT110	Fundamental Lab Techniques *	3
MLT130	Hematology *	3
MLT250	Clinical Microbiology	4

Total Credits 10

Semester 4 - Fall

MLT230	Advanced Hematology *	3
MLT233	Hemostasis and Thrombosis	2
MLT240	Clinical Chemistry I	7
MLT252	Parasitology *	1
MLT260	Immunohematology	4
MLT270	Immunology and Serology	2

Total Credits 19

Semester 5 - Spring

MLT285	Clinical Practicum: Chemistry	4
MLT287	Clinical Practicum: Hematology	4
MLT288	Clinical Practicum: Microbiology	4

Total Credits 12

Semester 6 - Summer

MLT283	Clinical Practicum: Urinalysis	1
MLT284	Clinical Practicum: Immunohematology	2

| MLT286 | Clinical Practicum: Immunology and Serology | 1 |
| MLT291 | Clinical Practicum: Lab Survey and Review | 1 |

Total Credits 5

* Courses you may take prior to full acceptance to the Medical Laboratory Technology program if you meet Hawkeye's general admission requirements.

Program Contacts

Department Secretary
Becky Lauritsen
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
Sarah Turner
Grundy Hall 159
319-296-4432
Email me

Occupational Therapy Assistant

The Occupational Therapy Assistant program is new to Hawkeye and has recently been granted Developing Program Status by the Accreditation Council for Occupational Therapy Education (ACOTE). As a result of this action, Hawkeye Community College may now admit students into Phase II of the Occupational Therapy Assistant program. Occupational Therapy Assistant courses will begin Fall Semester 2011.

The Occupational Therapy Assistant program prepares students with entry-level skills and knowledge to provide treatments that improve comsumers' 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 supervison 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 has applied for accreditation and has been granted Developing Program Status by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA).

Once accreditation of the program has been obtained, its graduates will be eligible to sit for the national certification examination for the occupational therapy assistant administered by the National Board for

Certification in Ooccupational Therapy (NBCOT).

ACOTE

4720 Montgomery Lane

P.O. Box 31220

Bethesda, MD 20824-1220

301-652-2682 ext.2914

accred@aota.org

NBCOT

800 S. Frederick Avenue, Suite 200

Gaithersburg, MD 20877-4150

301-990-7979

www.nbcot.org

Hawkeye Community College Accreditation

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Program Admission Requirements

The Occupational Therapy Assistant program at Hawkeye is considered a 1+1 model. Students must complete separate admissions requirements for Phase I: Admissions Requirements and Phase II: Program Requirements.

Phase I: Admission Requirements

During Phase I, students complete the general education courses, which can be completed full-time in as little as one year, or part-time.

To be accepted to Phase I students must:

1. Be a high school graduate or equivalent.

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.

    Competency is met by achieving the following sub scores on the ACT or the COMPASS assessment:

    ACT sub scores

    - 19 - Math
    - 19 - Reading
    - 19 - English

    COMPASS scores

    - 42 - Algebra
    - 82 - Reading
    - 65 - Writing

    OR

    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
    - MAT063 Elementary Algebra
    - RDG040 College Preparatory Reading III

    OR

    Any combination of the above fulfilling the basic skills requirements in math, reading, and writing.

4. For full acceptance into the Occupational Therapy Assistant program, you must successfully complete the Phase II: Program Requirements and the Occupational Therapy Assistant program application.

Phase I: Admissions Process

1. Send your transcripts and test scores to the Admissions office.

2. Completed applicant files (we have your application, transcripts, and test scores) will be processed as follows:
   - Applicants not meeting the program's Phase I admission requirements will be sent an inactivation letter.
   - Applicants meeting all Phase I Basic Skills requirements will be considered Occupational Therapy Assistant 'Wait' students and will be able to take general education courses as required in Phase I of the program.

     Being a 'Wait' student does not guarantee Phase II acceptance.

     Phase II program applicants who successfully complete Phase I courses, Phase II entrance requirements, and complete the Phase II program application will continue with Phase II of the program as openings are assigned.

Phase II: Program Entrance Requirements

Phase II contains the Occupational Therapy Assistant (OTA) technical courses and clinical education experience, which are completed on a full-time basis in approximately 12 months.

Phase II requires an Occupational Therapy Assistant program application.

Before applying to Phase II of the program, applicants must complete the following requirements.

1. One year of high school biology, English, and math (algebra and geometry) with a grade of "C" or better in each course. One semester of a college-level comparable course may be substituted.

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).

   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.

3. 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.

4. At least 20 credits of Phase I course work 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. Complete and submit a Phase II application packet.

   Phase II Occupational Therapy Assistant application packets are available 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]
- Iowa Core Performance Standards for Health Care Career Programs Acknowledgement Form [pdf]

2. Phase II program applicants who successfully complete Phase I coursework and Phase II entrance requirements 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. Twenty students are accepted into Phase II each Fall Semester. Applicants will be accepted based on the date the Phase II program applicant file was completed.

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.

5. Students that are accepted to Phase II will receive an Occupational Therapy Assistant Student Handbook that details additional information about the program, including the physical exam, updated immunizations, and criminal background checks that need to be completed prior to the start of Phase II courses.

Hawkeye's Nondiscrimination Statement

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: $34,000 - $43,500 per year*

*Source: Iowa Workforce Development

Associations

- The American Occupational Therapy Association, Inc. (AOTA)

Program Contacts

Department Secretary
Becky Lauritsen
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
Sarah Turner
Grundy Hall 159
319-296-4432
Email me

Sequence of Study

Occupational Therapy Assistant

Degree Awarded: AAS
Program Start: Fall only

View course descriptions

Phase I: General Education Courses

Students are not eligible for the Iowa Vocational Technical Tuition Grant while taking Phase I courses.

Semester 1 - Fall		
BIO168	Human Anatomy and Physiology I w/lab *	4
ENG105	Composition I	3
HSC113	Medical Terminology for Health Sciences	2
MAT110	Math for Liberal Arts	3
PSY111	Introduction to Psychology	3

Total Credits 15

Semester 2 - Spring		
BIO173	Human Anatomy and Physiology II w/lab *	4
CSC110	Introduction to Computers	3
PSY121	Developmental Psychology	3
PSY241	Abnormal Psychology	3
SOC110	Introduction to Sociology OR	3
SOC205	Diversity in America	3
SPC101	Fundamentals of Oral Communication	3

Total Credits 19

* Anatomy and Physiology must be taken within five years of Phase II entry unless waived by the program chair.

Program Contacts

Department Secretary
Becky Lauritsen
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
Sarah Turner
Grundy Hall 159
319-296-4432
Email me

Phase II: Occupational Therapy Assistant Technical Courses

Phase II contains the Occupational Therapy Assistant Technical Courses and clinical experience, which are completed on a full-time basis in approximately 12 months. Part-time enrollment is not an option for this phase of the program.

Before students can begin Phase II of the Occupational Therapy Assistant program, they must complete a program application packet.

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. Passing a background check of criminal history, sex offender registry, child abuse, and the dependent adult abuse registry.

2. CPR Certification, HIPPA, First Aid, Mandatory Reporter, OSHA Hazard Training

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.

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 course work 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.

Semester 3 - Fall		
OTA101	Introduction to Occupational Therapy	3
OTA102	Human Movement & Occupation	3
OTA103	Task Analysis	3
OTA104	Assistive Tech and EM	2
OTA201	Pediatrics & Occupation	3
OTA202	Pediatric Occupational Therapy Assistant Skills	3
OTA203	Level I Fieldwork A	2

Total Credits 19

Semester 4 - Spring		
OTA301	Adult Conditions & Occupation	4
OTA302	Physical Occupational Therapy Assistant Skills	3
OTA303	Psychosocial Occupational Therapy Assistant Skills	3

OTA304	Level I Fieldwork B	2
OTA401	Elders & Occupation	2
OTA402	Occupational Therapy Assistant Skills for Elders	2
OTA501	Professional Practice for Occupational Therapy Assistant	3

Total Credits 19

Semester 5 - Summer

OTA502	Level II Fieldwork A	5
OTA503	Level II Fieldwork B	5

Total Credits 10

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 April 19, 2011, the PTA Program at Hawkeye Community College has been granted Candidate for Accreditation status by the Commission on Accreditation in Physical Therapy Education (1111 North Fairfax Street, Alexandria, VA, 22314; phone: 703-706-3245; email: accreditation@apta.org). Candidate for Accreditation is a pre-accreditation status of affiliation with the Commission on Accreditation in Physical Therapy Education that indicates that the program may matriculate students in technical/professional courses and that the program is progressing toward accreditation. Candidate for Accreditation is not an accreditation status nor does it assure eventual accreditation.

National Licensure Exam

Graduation from an accredited program is required to sit for the national licensure exam. A social security number is required to apply to take the national licensure exam.

Program Contacts

Department Secretary
Becky Lauritsen
Grundy Hall 159
319-296-4013
Email me

Program Advisor
Mary Allen
Health Education and
Services Center 208
319-296-2329 ext.1254
Email me

Dean
Sarah Turner
Grundy Hall 159
319-296-4432
Email me

Program Admission Requirements

The Physical Therapist Assistant program at Hawkeye is considered a 1+1 model. Students must complete separate admissions requirements for Phase 1: Admissions Requirements and Phase 2: Program Requirements.

Phase 1: Admission Requirements

During Phase 1, students complete the general education courses, which can be completed full-time in as little as one year, or part-time.

To be accepted to Phase 1 students must:

1. Be a high school graduate or equivalent.

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.

   Competency is met by achieving the following sub scores on the ACT or the COMPASS assessment:

   ACT sub scores

   - 19 - Math
   - 19 - Reading
   - 19 - English

   COMPASS scores

   - 42 - Algebra
   - 82 - Reading
   - 65 - Writing

   OR

   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
   - MAT063 Elementary Algebra
   - RDG040 College Preparatory Reading III

   OR

   Any combination of the above fulfilling the basic skills requirements in math, reading, and writing.

4. For full acceptance into the Physical Therapy Assistant program, you must successfully complete the Phase 2: Program Requirements and the Physical Therapist Assistant program application.

Phase 1: Admissions Process

Program Contacts

Department Secretary
Becky Lauritsen
Grundy Hall 159
319-296-4013
Email me

Program Advisor
Mary Allen
Health Education and Services Center 208
319-296-2329 ext.1254
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Dean
Sarah Turner
Grundy Hall 159
319-296-4432
Email me

1. Send your official transcripts and test scores to the Admissions office.

2. Completed applicant files (Admissions has your application, official transcripts, and test scores) will be processed as follows:

   ○ Applicants not meeting the program's Phase 1 admission requirements will be sent an inactivation letter.

   ○ Applicants meeting all Phase 1 Basic Skills requirements will be considered Physical Therapist Assistant 'Wait' students and will be able to take general education courses as required in Phase 1 of the program.

     Being a 'Wait' student does not guarantee Phase 2 acceptance.

     Phase 2 program applicants who successfully complete Phase I courses, Phase 2 entrance requirements, and complete the Phase 2 program application will continue with Phase 2 of the program as openings are assigned.

Phase 2: Program Entrance Requirements

Phase 2 contains the Physical Therapist Assistant (PTA) technical courses and clinical education experience, which are completed on a full-time basis in approximately 12 months.

Phase 2 requires a Physical Therapist Assistant program application.

Before applying to Phase 2 of the program, applicants must complete the following requirements.

1. Physics:

   ○ One semester of high school physics with a grade "C" or better. A full year of high school physics is suggested, but not required.

     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. One year of high school biology, English, and math (algebra and geometry) are strongly suggested but not required.

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.

   Document the observations on the Pre-Admission Observation Hours form [pdf]. Return the form with your Phase 2 application.

4. Interview with a program faculty member before applying for Phase 2 of the Physical Therapist Assistant program. Contact a Physical Therapist Assistant faculty member to set up an interview time. It is recommended this interview occur prior to starting Phase 1 or shortly thereafter.

5. A minimum cumulative GPA of 2.75 is required for Phase 1 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 1 general education course.

BIO168 and BIO173 must have been completed within the last five years of starting Phase 2, unless waived by the program chair..

6. At least 18 credits of Phase 1 coursework must be completed with the required grades prior to applying for Phase 2 of the program.

Phase 2: Admissions Process

1. Complete and submit a Phase 2 application. Phase 2 applications are available outside of Grundy Hall 159, 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 2 program applicant file. You do not need to submit this form in your Applicant Packet.

2. Phase 2 program applicants who successfully complete Phase I coursework and Phase 2 entrance requirements will continue with Phase 2 of the program as openings are assigned.

   Students will be notified of their acceptance or non-acceptance via their Hawkeye email.

3. Twenty students are accepted into Phase 2 each Fall Semester. The Physical Therapist Assistant program uses a rolling application process. Applicants will be accepted based on the date the Phase 2 program applicant file was completed.

4. If necessary, alternates will be contacted, based on the date the Phase 2 program applicant file was completed, to fill unconfirmed positions in the program.

5. Students that are accepted to Phase 2 will receive a Physical Therapist Assistant Student Handbook that details additional information about the program, including the physical exam, updated immunizations, and criminal background checks that need to be completed prior to the start of Phase 2 courses.

Hawkeye's Nondiscrimination Statement

Careers

Physical Therapist Assistants work in a wide vareity of settings including hospitals, rehabilitation clinics, out-patient facilities, schools, and nursing homes.

Placement

Starting wages: $27,500-$39,000 per year*

Physical therapist assistant is one of the fastest growing occupations in Iowa

* Source: Iowa Workforce Development

Program Contacts

Department Secretary
Becky Lauritsen
Grundy Hall 159
319-296-4013
Email me

Program Advisor
Mary Allen
Health Education and
Services Center 208
319-296-2329 ext.1254
Email me

Dean
Sarah Turner
Grundy Hall 159
319-296-4432
Email me

Sequence of Study

Physical Therapist Assistant

Degree Awarded: AAS
Program Start: Fall only

View course descriptions

Phase 1: General Education Courses

Students are not eligible for the Iowa Vocational Technical Tuition Grant while taking Phase I courses.

Semester 1 - Fall		
BIO168	Human Anatomy and Physiology I w/lab *	4
CSC110	Introduction to Computers	3
ENG105	Composition I	3
HSC113	Medical Terminology for Health Sciences	2
PSY111	Introduction to Psychology	3
SOC110	Introduction to Sociology	3

Total Credits 18

Semester 2 - Spring		
BIO173	Human Anatomy and Physiology II w/lab *	4
MAT110	Math for Liberal Arts	3
PSY121	Developmental Psychology	3
SOC205	Diversity in America	3
SPC101	Fundamentals of Oral Communication	3

Total Credits 16

* Anatomy and Physiology must be taken within five years of Phase 2 entry unless waived by the program chair.

Phase 2: Physical Therapist Assistant Technical Courses

Phase 2 contains the Physical Therapist Assistant Technical Courses and clinical experience, which are completed on a full-time basis in approximately 12 months. Part-time enrollment is not an option for this phase of the program.

Before students can begin Phase 2 of the Physical Therapy Assistant program, they must complete a program application packet.

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. Passing a background check of criminal history, sex offender registry, child abuse, and the dependent adult abuse registry.
2. CPR Certification, HIPPA/First Aid/Mandatory Reporter/OSHA Hazard Training
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.

A dress code for clinical education exists and may be dictated by the clinical site. Purchase of a white lab coat is required prior to the start of Phase 2.

Students must earn a grade of "C" or higher in all of their Phase 2 coursework. Less than a "C" is considered failing. Students may not progress with other course work until a failed course is retaken. Students may only fail one Phase 2 course; failing more than one course will be grounds for dismissal from the program.

Semester 3 - Fall		
PTA101	Introduction to PTA	2
PTA110	Fundamentals for PTA	3
PTA120	Kinesiology	3
PTA150	Pathophysiology	3
PTA194	Therapeutic Agents I	3
PTA211	Musculoskeletal I	3
PTA310	PTA Clinical I	1

Total Credits 18

Semester 4 - Spring		
PTA113	Fundamentals for PTA II	3
PTA195	Therapeutic Agents II	3
PTA212	Musculoskeletal II	3
PTA231	Therapeutic Exercise for PTA	3

PTA248	PTA Neurology	4
PTA285	PTA Professional Issues	1
PTA311	PTA Clinical II**	1

Total Credits 18

** Clinic will begin one week prior to the start of Spring Semester.

Semester 5 - Summer		
PTA415	PTA Clinical III	5
PTA416	PTA Clinical IV	5

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.

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Program Contacts

Department Secretary
Becky Lauritsen
Grundy Hall 159
319-296-4013
Email me

Dean
Sarah Turner
Grundy Hall 159
319-296-4432
Email me

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Program 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

1. Be a high school graduate or equivalent.

2. Apply at Hawkeye.

3. Meet basic skill competencies in reading, writing, and math; and have completed one year of high school biology or the equivalent with a "C" grade or higher in each semester.

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

   For admission into the Practical Nursing program, you must score at least the following sub scores on the ACT or the COMPASS assessment:

   ACT sub scores

   - 19 - Math
   - 19 - Reading
   - 19 - English

   COMPASS scores

   - 42 - Algebra
   - 82 - Reading
   - 65 - Writing

   OR

   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
   - MAT063 Elementary Algebra
   - RDG040 College Preparatory Reading III
   - BIO042 Prep. Science for Health Careers

   OR

   Any combination of the above that fulfills the requirements in reading, writing, math, and biology.

Step 2

Complete the Test for Essential Academic Skills (TEAS) with a composite score of 64% or higher.

Applicants are not allowed to retake the Test for Essential Academic Skills once a minimum composite score of 64% is achieved.

A fee is assessed at Hawkeye for the TEAS test.

Program Contacts

Department Secretary
Becky Lauritsen
Grundy Hall 159
319-296-4013
Email me

Dean
Sarah Turner
Grundy Hall 159
319-296-4432
Email me

You Tube

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Step 3

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.

Practical Nursing Point System Criteria	Points Awarded
ACT Composite of 22 or higher	2
ACT Composite of 19-21	1
High School Cumulative GPA 3.50 or higher	3
High School Cumulative GPA 3.00 – 3.49	2
High School Cumulative GPA 2.50 – 2.99, GED passing rate, High School Cumulative GPA from a grading scale other than 4.00	1
High School Cumulative GPA 2.49 or below	0
Master of Arts or Master of Science Degree OR	3
Bachelor of Arts or Bachelor of Science Degree OR	2
Associate in Arts or Associate in Science Degree	1
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 courses	3
Cumulative GPA between 3.00 – 3.49 for above 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	1

BIO151 Nutrition

- PNN343 Nursing Perspectives Through the Lifespan OR
PSY121 Developmental Psychology

Admissions Process

1. Applications will be processed for admission for the Fall and Spring semester.

2. Send your credentials (official transcripts, assessment scores, and TEAS scores) as required by the program's admission requirements to the Admissions office.

3. Completed applicant files (we have your application, official transcripts, assessment scores, and TEAS scores) will be processed as follows:
    a. Applicants who do not meet the program's admission requirements in Step 1 and Step 2 will be inactivated and will be sent an Admissions Inactivation Letter.

    b. Applicants enrolled in coursework to complete the admission requirements will be candidates.

    c. Applicants who meet the program's admission requirements under Step 1 and Step 2 will be acceptable for admission and placed on the Eligible for Acceptance list based on the highest point total earned.

Hawkeye's Equal Opportunity Statement

Careers

Graduates often work in settings such as hospitals, long-term care facilities, clinics, and physicians' offices.

Placement

Starting Wages: $30,000 - $37,000 per year*

Iowa Workforce Development forecasts more than 385 openings each year for licensed practical nurses through 2018.

Licensed practical nursing is one of the top occupations in Iowa with the most job openings.

*Source: Iowa Workforce Development

Employers

Allen Memorial Hospital	Waterloo, IA
Cedar Falls Lutheran Home	Cedar Falls, IA
Waverly Health Center	Waverly, IA
Western Home Communities	Cedar Falls, IA
Wheaton Franciscan Hospitals	Waterloo, IA Cedar Falls, IA

Program Contacts

Department Secretary
Becky Lauritsen
Grundy Hall 159
319-296-4013
Email me

Dean
Sarah Turner
Grundy Hall 159
319-296-4432
Email me

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Sequence of Study

Practical Nursing

Degree Awarded: Diploma
Program Start:

View course descriptions

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.

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.

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.

Semester 1		
BIO159	Fundamentals of Anatomy & Physiology OR	3
BIO168	Human Anatomy and Physiology I w/lab AND	4
BIO173	Human Anatomy and Physiology II w/lab	4
PNN103	Nursing Calculations	2
PNN132	Nursing Fundamentals I OR	3
PNN100	Nursing Assistant	3
PNN133	Nursing Fundamentals II	3
PNN161	Introduction to Client Care	1
PNN270	Introduction to Nutrition	2
PSY111	Introduction to Psychology	3

Total Credits 17

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Semester 2		
COM781	Written Communication in the Workplace OR	3
ENG105	Composition I	3
PNN541	Medical Surgical Nursing A	5
PNN542	Medical Surgical Nursing B	5
PNN543	Foundations of Clinical Practices	3

Total Credits 16

Semester 3		
PNN311	PN Issues and Trends	1
PNN341	Nursing Practicum	1
PNN343	Nursing Perspectives Through the Lifespan	3
PNN401	Mental Health Nursing	1
PNN433	Maternal - Child Nursing	3

Total Credits 9

Program Contacts

Department Secretary
Becky Lauritsen
Grundy Hall 159
319-296-4013
Email me

Program Advisor
Jamie Bute
Grundy Hall 134
319-296-2329 ext.1919
Email me

Dean
Sarah Turner
Grundy Hall 159
319-296-4432
Email me

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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. Please keep in mind, a social security number is required in order to take exams and apply for licensure.

Accreditation

The Respiratory Care program is accredited by the Commission on Accreditation for Respiratory Care.

Commission on Accreditation for Respiratory Care
1248 Harwood Road
Bedford, TX 76021-4244
817-283-2835

Transfer Information

Students in the Respiratory Care program interested in continuing their education should visit with a program advisor.

Program Admission Requirements

1. Be a high school graduate or equivalent.

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 admission into the Respiratory Care program, you must score at least the following sub scores on the ACT or the COMPASS assessment:

   ACT sub scores

   - 19 - Math
   - 19 - Reading
   - 19 - English

   COMPASS scores

   - 42 - Algebra
   - 82 - Reading
   - 65 - Writing

   OR

   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 II
   - MAT063 Elementary Algebra

   OR

   Any combination of the above fulfilling the basic skills requirements in algebra, reading, and wrting.

Admissions Process

1. Send your transcripts and test scores to the Admissions office.

2. Completed applications (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 inactivated and 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 courses. Upon completion of this coursework with the required cumulative GPA, students will be able to register for the Respiratory Care program courses.

Program Contacts

Department Secretary
Becky Lauritsen
Grundy Hall 159
319-296-4013
Email me

Program Advisor
Jamie Bute
Grundy Hall 134
319-296-2329 ext.1919
Email me

Dean
Sarah Turner
Grundy Hall 159
319-296-4432
Email me

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3. We accept approximately 30 students and 10 alternates each Fall Semester. We accept approximately 20 students each Summer Term to the Respiratory Care professional core courses.

4. Applicants will be accepted based on the date their admissions application was completed.

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

Hawkeye's Equal Opportunity Statement

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: $38,500 - $46,000 per year*

*Source: Iowa Workforce Development

Employers

Allen Memorial Hospital	Waterloo, IA
American Home Patient	All locations in Iowa & Wisconsin
Harmony House Health Care Center	Waterloo, IA
Mayo Clinic	Rochester, IA
Midwest Sleep Services	Waterloo, IA
Sumner Memorial Hospital	Sumner, IA
University of Iowa Hospital and Clinics	Iowa City, IA
Wheaton Franciscan Hospitals	Waterloo, IA Cedar Falls, IA

Program Contacts

Department Secretary
Becky Lauritsen
Grundy Hall 159
319-296-4013
Email me

Program Advisor
Jamie Bute
Grundy Hall 134
319-296-2329 ext.1919
Email me

Dean
Sarah Turner
Grundy Hall 159
319-296-4432
Email me
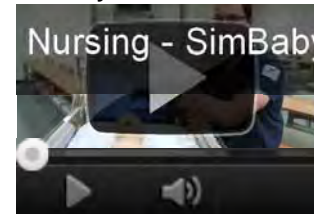
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Sequence of Study

Respiratory Care

Degree Awarded: AAS
Program Start: Fall only

[View course descriptions](#)

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.

You must achieve a minimum "C" grade in all courses required to complete the program.

Semester 1 - Prerequisite Courses - Fall		
BIO168	Human Anatomy and Physiology I w/lab	4
CHM122	Introduction to General Chemistry	4
CSC110	Introduction to Computers	3
HSC113	Medical Terminology for Health Sciences	2
MAT110	Math for Liberal Arts	3

Total Credits 16

Semester 2 - Prerequisite Courses - Spring		
BIO173	Human Anatomy and Physiology II w/lab	4
BIO185	Microbiology w/lab	3
ENG105	Composition I	3
PSY111	Introduction to Psychology	3
SPC101	Fundamentals of Oral Communication	3

Program Contacts

Department Secretary
Becky Lauritsen
Grundy Hall 159
319-296-4013
Email me

Program Advisor
Jamie Bute
Grundy Hall 134
319-296-2329 ext.1919
Email me

Dean
Sarah Turner
Grundy Hall 159
319-296-4432
Email me

You Tube
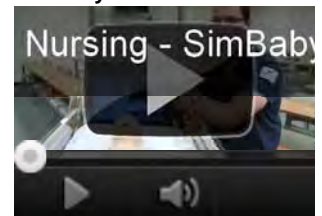
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Total Credits 16

Prior to registering for the Respiratory Care program (RCP) courses you must complete the prerequisite courses with a minimum cumulative GPA of 2.75.

You will not be eligible for the Iowa Vocational Technical Tuition Grant while taking the prerequisite courses.

Semester 3 - Summer		
RCP100	Introduction to Respiratory Care	3
RCP260	Airway Maintenance Procedures	4

Total Credits 7

Semester 4 - Fall		
RCP315	Cardiopulmonary Therapeutics	4
RCP350	Pulmonary Pathology	3
RCP561	Introduction to Ventilator Support	3
RCP630	Pediatric/Neonatal Respiratory Care	2
RCP680	Clinical Respiratory Care	4

Total Credits 16

Semester 5 - Spring		
RCP410	Cardiopulmonary Diagnostics	3
RCP565	Intensive Respiratory Care	3
RCP690	Clinical Intensive Care	8
RCP875	Respiratory Care Applications	2

Total Credits 16

Semester 6 - Summer		
RCP900	Clinical Preceptor	4

Total Credits 4

Program Contacts

Department Secretary
Deb Hacker
Buchanan Hall 103
319-296-4009
Email me

Advisor
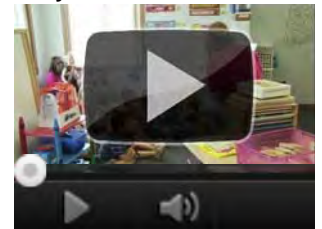Jane Huebner
Black Hawk Hall 226
319-296-2329 ext.1431
Email me

Dean
Laurel Klinkenberg
Black Hawk Hall 224
319-296-4041
Email me

You Tube

Early Childhood Education

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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.

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

Transfer Information
Students in the Early Childhood Education program interested in continuing their education should contact a program advisor.

Program Admission Requirements

1. Be a high school graduate or equivalent.

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, you must score at least 19 on the ACT assessment in Reading, Math, and English or take the COMPASS assessment.

   Depending on your COMPASS scores, you may need to complete college success courses with a "C" grade or higher at Hawkeye Community College or comparable courses at another accredited college.

   Assessment may be waived based on courses taken, credits earned, and grades received at a previous college. Please send your official college transcripts to the Admissions office for evaluation.

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Program Contacts

Department Secretary
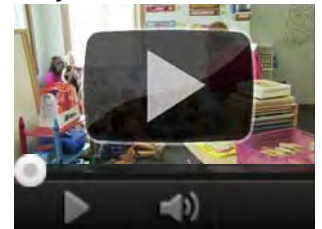Deb Hacker
Buchanan Hall 103
319-296-4009
Email me

Advisor
Jane Huebner
Black Hawk Hall 226
319-296-2329 ext.1431
Email me

Dean
Laurel Klinkenberg
Black Hawk Hall 224
319-296-4041
Email me

Early Childhood Education

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Careers

Graduates are working in a variety of child care settings including:

- head-start classes
- franchised child care centers
- public and private child care centers
- preschools
- public schools as paraeducators
- home child care providers
- nannies

Placement

Starting Wages: $17,000 - $25,000 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

Community United Child Care Centers	Waterloo, IA
	Cedar Falls, IA
Hawkeye Child Development Center	Waterloo, IA
Tri-County Child & Family Development Council, Inc.	Waterloo, IA
Trinity Child Development Center	Waterloo, IA
Waterloo Community Schools	Waterloo, IA
Waverly Child Care and Preschool	Waverly, IA

Program Contacts

Department Secretary
Deb Hacker
Buchanan Hall 103
319-296-4009
Email me

Advisor
Jane Huebner
Black Hawk Hall 226
319-296-2329 ext.1431
Email me

Dean
Laurel Klinkenberg
Black Hawk Hall 224
319-296-4041
Email me

Early Childhood Education
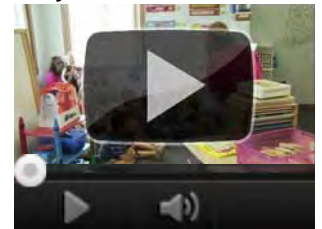
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Sequence of Study

Early Childhood Education | Diploma Option

Degree Awarded: AAS
Program Start: Fall and Spring

View course descriptions

Students must pass a DHS Criminal History Record Check and an FBI Fingerprint Check before being placed in Field Experience courses.

Semester 1

ECE103	Introduction to Early Childhood Education	3
ECE158	Early Childhood Curriculum I	3
ECE170	Child Growth and Development	3
ECE221	Infant/Toddler Care and Education	3
ENG105	Composition I OR	3
COM781	Written Communication in the Workplace	3
MAT772	Applied Math OR	3
	Math Elective	3

Total Credits 18

Semester 2

ECE133	Child Health, Safety and Nutrition	3
ECE159	Early Childhood Curriculum II	3
ECE243	Early Childhood Guidance	3
ECE274	Field Experience I	2
ECE944	Field Experience Seminar I	1
SOC110	Introduction to Sociology	3

Total Credits 15

Program Contacts

Department Secretary
Deb Hacker
Buchanan Hall 103
319-296-4009
Email me

Advisor
Jane Huebner
Black Hawk Hall 226
319-296-2329 ext.1431
Email me

Dean
Laurel Klinkenberg
Black Hawk Hall 224
319-296-4041
Email me

Early Childhood Education

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Semester 3		
ECE120	Communication with Families	2
ECE122	Parenting Relationships	2
ECE125	School Age Care	2
ECE260	Current Topics and Issues in Child Care	2
ECE284	Field Experience II	2
ECE298	Child Development Career Strategies	2
ECE945	Field Experience Seminar II	1
SPC101	Fundamentals of Oral Communication	3

Total Credits 16

Semester 4		
ECE250	Advanced Curriculum Planning	3
ECE285	Exceptional Child	2
ECE290	Early Childhood Program Administration	3
PSY111	Introduction to Psychology	3
	Elective*	3

Total Credits 14

* Any credit course or combination of courses (three one-credit courses) equating to three credits can be taken to meet this requirement.

Math Electives		
MAT110	Math for Liberal Arts	3
MAT122	College Algebra	5
MAT128	Precalculus	4
MAT134	Trigonometry and Analytic Geometry	3
MAT156	Statistics	3
MAT210	Calculus I	4
MAT216	Calculus II	4
MAT219	Calculus III	4

Sequence of Study

Early Childhood Education	Diploma Option

Degree Awarded: Diploma
Program Start: Fall and Spring

View course descriptions

Semester 1

ECE103	Introduction to Early Childhood Education	3
ECE158	Early Childhood Curriculum I	3
ECE170	Child Growth and Development	3
ECE221	Infant/Toddler Care and Education	3
ENG105	Composition I OR	3
COM781	Written Communication in the Workplace	3
MAT772	Applied Math OR	3
	Math Elective	3

Total Credits 18

Semester 2

ECE133	Child Health, Safety and Nutrition	3
ECE159	Early Childhood Curriculum II	3
ECE243	Early Childhood Guidance	3
ECE274	Field Experience I	2
ECE944	Field Experience Seminar I	1
SOC110	Introduction to Sociology OR	3
PSY102	Human & Work Relations	3

Total Credits 15

Program Contacts

Department Secretary
Deb Hacker
Buchanan Hall 103
319-296-4009
Email me

Advisor
Jane Huebner
Black Hawk Hall 226
319-296-2329 ext.1431
Email me

Dean
Laurel Klinkenberg
Black Hawk Hall 224
319-296-4041
Email me

You Tube

Early Childhood Education

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Math Electives		
MAT 110	Math for Liberal Arts	3
MAT 122	College Algebra	5
MAT 128	Precalculus	4
MAT 134	Trigonometry and Analytic Geometry	3
MAT 156	Statistics	3
MAT 210	Calculus I	4
MAT 216	Calculus II	4
MAT 219	Calculus III	4

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 ciminalistics, and defensive tactics.

Students learn to safely and skillfully shoot live firearems using indoor and outdoor ranges and MILO, a virtual firearems 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.

Program Contacts

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

Program Advisor
Patrick Fisher
Health Education and
Services Center 217A
319-296-2329 ext. 1330
Email me

Jane Wagner
Health Education and
Services Center 217D
319-296-2329 ext. 1400
Email me

Program Admission Requirements

1. Be a high school graduate or equivalent.

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, you must score at least 19 on the ACT assessment in Reading, Math, and English or take the COMPASS assessment.

   Depending on your COMPASS scores, you may need to complete college success courses with a "C" grade or higher at Hawkeye Community College or comparable courses at another accredited college.

   Assessment may be waived based on courses taken, credits earned, and grades received at a previous college. Please send your official college transcripts to the Admissions office for evaluation.

Program Contacts

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

Program Advisor
Patrick Fisher
Health Education and
Services Center 217A
319-296-2329 ext.1330
Email me

Jane Wagner
Health Education and
Services Center 217D
319-296-2329 ext.1400
Email me

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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: $34,000 - $46,000 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

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

Program Advisor
Patrick Fisher
Health Education and Services Center 217A
319-296-2329 ext.1330
Email me

Jane Wagner
Health Education and Services Center 217D
319-296-2329 ext.1400
Email me

Sequence of Study

Police Science

Degree Awarded: AAS
Program Start: Fall and Spring

View course descriptions

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.

Semester 1

CRJ100	Intro to Criminal Justice	3
CRJ110	Patrol Procedures	3
ENG105	Composition I	3
MAT772	Applied Math OR	3
	Math Elective	3
SOC110	Introduction to Sociology	3

Total Credits 15

Semester 2

AGP401	Introduction to GIS Software	1
CRJ151	Defensive Tactics	2
CRJ200	Criminology	3
CRJ244	Traffic Collision Investigation	3
ENG106	Composition II	3
PEH110	Personal Wellness	2
PSY111	Introduction to Psychology	3

Total Credits 17

Program Contacts

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

Program Advisor
Patrick Fisher
Health Education and Services Center 217A
319-296-2329 ext.1330
Email me

Jane Wagner
Health Education and Services Center 217D
319-296-2329 ext.1400
Email me

Semester 3		
CRJ131	Criminal Law and Procedure	3
CRJ216	Employment Strategies for Criminal Justice	2
CRJ242	Applied Criminalistics	3
CRJ941	Practicum	4
SPC101	Fundamentals of Oral Communication	3
	Physical Activity - Aerobics Course	1

Total Credits 15

Semester 4		
CRJ132	Constitutional Law	3
CRJ141	Criminal Investigation	3
CRJ201	Juvenile Delinquency	3
CRJ252	Basic Firearms*	1
CRJ254	Advanced Firearms**	1
CRJ258	Ethical Issues in Criminal Justice	2
CRJ299	Current Issues in Criminal Justice	2
	Physical Activity - Skilled Course	

Total Credits 15

* 1st 8-Week Class

** 2nd 8-Week Class

Math Electives		
MAT110	Math for Liberal Arts	3
MAT122	College Algebra	5
MAT128	Precalculus	4
MAT134	Trigonometry and Analytic Geometry	3
MAT156	Statistics	3
MAT210	Calculus I	4
MAT216	Calculus II	4

MAT219	Calculus III	4

Physical Activity - Aerobics Courses		
PEA102	Aerobic Fitness I	1
PEA114	Bicycling I	1
PEA119	Step & Pump I	1
PEA123	Circuit Training	1
PEA128	Distance Running I	1
PEA150	Powerwalking	1
PEA191	Pilates	1
PEA194	Vinyasa Yoga	1

Select 1 credit from the following:

Physical Activity - Skilled Courses		
PEA117	Bowling I	1
PEA134	Golf I	1
PEA154	Racquetball I	1
PEA157	Rollerblading	1
PEA171	Self-Defense	1
PEA174	Tennis I	1
PEA176	Volleyball I	1
PEA187	Weight Training I	1
PEA193	Resit-A-Ball	1

Select 1 credit from the following:

Program Contacts

Department Secretary
Kendra Wyatt-Koger
Buchanan Hall 103
319-296-4009
Email me

Program Advisor
Dan Utley
Butler Hall 138
319-296-2329 ext.1730
Email me

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me

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 2007, renewable sources of energy accounted for about 7% of total energy consumption and 9.4% 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.

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Program Admission Requirements

1. Be a high school graduate or equivalent.

2. Complete an Admissions Application for the Alternative Energy Technology program.

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 admission into the Industrial Alternative Energy Technology program, you must score at least the following sub scores on the ACT or the COMPASS assessment:

   ACT sub scores

   - 19 - Math
   - 19 - Reading
   - 19 - English

   COMPASS scores

   - 24 - Pre-Algebra
   - 82 - Reading
   - 65 - Writing

   OR

   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

   OR

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

Admissions Process

1. Send your transcripts and test scores to the Admissions office.

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 inactivated and will be sent an Admissions Inactivation Letter.

   b. Applicants who meet the program's admission requirements will be acceptable for admission.

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

Program Contacts

Department Secretary
Deb Hacker
Buchanan Hall 103
319-296-4009
Email me

Program Advisor
Dan Utley
Butler Hall 138
319-296-2329 ext.1730
Email me

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me

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

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: $31,500 - $43,000 per year*

As the energy industry shifts, a large workforce will be needed in the area of alternative energy technology.

*Source: Iowa Workforce Development

Program Contacts

Department Secretary
Deb Hacker
Buchanan Hall 103
319-296-4009
Email me

Program Advisor
Dan Utley
Butler Hall 138
319-296-2329 ext.1730
Email me

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me

Sequence of Study

Alternative Energy Technology

Degree Awarded: AAS
Program Start: Fall only

View course descriptions

Semester 1

CON102	Intro to Residential Construction	2
CON302	Building Science I	1
ELT139	Electrical Systems	3
ELT149	Advanced Electrical Systems	2
ENV170	Photovoltaic and Hybrid Electrical Systems	2
IND111	Industrial Safety Mechanical Systems	1
IND181	Heating, Ventilating, and Air Conditioning Systems	2
MAT772	Applied Math OR	3
MAT110	Math for Liberal Arts OR	3
MAT122	College Algebra OR	5
MAT128	Precalculus OR	4
MAT778	Applied Geometry/ Trigonometry	3

Total Credits 16

Semester 2

COM781	Written Communication in the Workplace OR	3
ENG105	Composition I	3
EGT140	Fluid Power	2
EGT420	Digital Electronics	3
ELE194	Power Generators & Transformers	2
ELT215	Motors and Controls	2

Program Contacts

Department Secretary
Deb Hacker
Buchanan Hall 103
319-296-4009
Email me

Program Advisor
Dan Utley
Butler Hall 138
319-296-2329 ext.1730
Email me

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me

ELT234	PLC Programming	2
ENV185	Photovoltaic Solar Systems	2

Total Credits 16

Semester 3

EGT144	Fluid Power Applications	2
ELT156	Industrial Electronics	5
ELT240	PLCs II	2
ELT802	Electronics Design Project I	1
HCR126	Solar Thermal Installation	2
PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3
WTT103	Wind Turbine Fundamentals	2

Total Credits 17

Semester 4

EGT152	Advanced Fluid Power and Servo Systems	2
ELT701	Embedded Processors	3
ELT736	Instrumentation & Control	2
ELT803	Electronics Design Project II	1
ENV155	Residential Energy Auditing	4
SPC101	Fundamentals of Oral Communication	3
WTT144	Wind Turbine System Controls	3

Total Credits 18

Civil & 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.

Program Contacts

Department Secretary
Deb Hacker
Buchanan Hall 103
319-296-4009
Email me

Program Advisors
Paresh Shettigar
Buchanan Hall 100-G
319-296-2329 ext.1107
Email me

Harlan Schuck
Buchanan Hall 100-I
319-296-2329 ext.1394
Email me

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me

Program Admission Requirements

1. Be a high school graduate or equivalent.

2. <u>Apply at Hawkeye.</u>

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 admission into the Civil and Construction Engineering Technology program, you must score at least the following sub scores on the ACT or the COMPASS assessment:

   ACT sub scores

   - 19 - Math
   - 19 - Reading
   - 19 - English

   COMPASS scores

   - 42 - Algebra
   - 82 - Reading
   - 65 - Writing

   OR

   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

   OR

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

Admissions Process

1. Send your transcripts and test scores to the <u>Admissions office</u>.

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 inactivated and will be sent an Admissions Inactivation Letter.

   b. Applicants who meet 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 admissions application was completed. The application date

Program Contacts

Department Secretary
Deb Hacker
Buchanan Hall 103
319-296-4009
Email me

Program Advisors
Paresh Shettigar
Buchanan Hall 100-G
319-296-2329 ext.1107
Email me

Harlan Schuck
Buchanan Hall 100-I
319-296-2329 ext.1394
Email me

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me

will be used to prioritize acceptance if needed.

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

Hawkeye's Equal Opportunity Statement

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: $32,000 - $44,000 per year*

*Source: Iowa Workforce Development

Employers

Black Hawk County Engineer's Office	Waterloo, IA
City of Waterloo Engineer's Office	Waterloo, IA
EarthTech/AECom	Waterloo, IA
Iowa Department of Transportation	Ames, IA
Peterson Contractors, Inc.	Reinbeck, IA
Snyder and Associates Engineers	Ankeny, IA Cedar Rapids, IA
Terracon Consultants	Cedar Falls, IA

Program Contacts

Department Secretary
Deb Hacker
Buchanan Hall 103
319-296-4009
Email me

Program Advisors
Paresh Shettigar
Buchanan Hall 100-G
319-296-2329 ext. 1107
Email me

Harlan Schuck
Buchanan Hall 100-I
319-296-2329 ext. 1394
Email me

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me

Sequence of Study

Civil and Construction Engineering Technology

Degree Awarded: AAS
Program Start:

<u>View course descriptions</u>

Semester 1

CAD105	CAD I	2
CET122	Construction Drawings and Contracts	2
CET133	Construction Methods and Resources	3
EGT460	Civil Engineering and Architecture	3
ELT192	Intro to EET Computer Science OR	3
CSC110	Introduction to Computers	3
MAT744	Technical Math OR	4
MAT122	College Algebra	5

Total Credits 17

Semester 2

CET142	PC Concrete, HMA and Testing	3
CET160	Surveying	3
CET182	Structural Detailing using CAD	2
CON266	Construction Safety	3
DRF113	Fundamentals of Technical Drafting	3
MAT128	Precalculus	4

Total Credits 18

Program Contacts

Department Secretary
Deb Hacker
Buchanan Hall 103
319-296-4009
Email me

Program Advisors
Paresh Shettigar
Buchanan Hall 100-G
319-296-2329 ext.1107
Email me

Harlan Schuck
Buchanan Hall 100-I
319-296-2329 ext.1394
Email me

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me

Semester 3

CET213	Route Surveying/Roadway Design	3
CET223	Soils, Testing and Foundations	3
CET233	Fundamentals of GPS and GIS	3
EGT243	Statics and Strength of Materials	3
ENG105	Composition I OR	3
COM781	Written Communication in the Workplace	3
PHY162	College Physics I	4

Total Credits 19

Semester 4

CET253	Fundamentals of Construction Estimating	3
CET256	Land Surveying	3
CET262	Environmental Technology	3
CET285	Structural Steel/Reinforced Concrete Design	3
PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3
SPC101	Fundamentals of Oral Communication	3

Total Credits 18

Program Contacts

Department Secretary
Deb Hacker
Buchanan Hall 103
319-296-4009
Email me

Program Advisors
Keith Siers
Buchanan Hall 120-D
319-296-4436
Email me

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 Tooling Technology

The CNC Machining and Tooling Technology program provides students the opportunity to acquire basic and intermediate skills in the areas of computer numerical control (CNC), computer aided drafting (CAD), and computer aided manufacturing (CAM). Students gain hands-on experience with the operation of precision machine tools, engine lathes, milling machines, grinders, drill presses, and computer controlled electrical discharge machines (EDM).

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 Tooling Technology at Hawkeye

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Program Admission Requirements

1. Be a high school graduate or equivalent.

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 admission into the CNC Machining and Tooling Technology program, you must score at least the following sub scores on the ACT or the COMPASS assessment:

   ACT sub scores

   - 19 - Math
   - 19 - Reading
   - 19 - English

   COMPASS scores

   - 24 - Pre-Algebra
   - 69 - Reading
   - 20 - Writing

   OR

   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:
   - MAT045 Fundamentals of Math
   - RDG-039 College Preparatory Reading II
   - Review in Writing at Metro Campus

   OR

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

Admissions Process

1. Send your transcripts and test scores to the Admissions office.

2. Completed applications (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 inactivated and will be sent an Admissions Inactivation Letter.

   b. Applicants who meet 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 admissions application was completed. The application date will be used to prioritize acceptance if needed.

Program Contacts

Department Secretary
Deb Hacker
Buchanan Hall 103
319-296-4009
Email me

Program Advisors
Keith Siers
Buchanan Hall 120-D
319-296-4436
Email me

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 Tooling Technology at Hawkeye

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

Hawkeye's Equal Opportunity Statement

Careers

Graduates find employment working in a variety of positions including:

- tool room machinist
- production machinist
- CNC operator for production or research and design
- CNC programmer
- CNC set-up specialist

Placement

Starting Wages: $27,000 - $36,500 per year*

Many graduates in this field work an average of 10 hours of overtime per week. These additional wages are not included in the above starting wages.

*Source: Iowa Workforce Development

Employers

Black Hawk Engineering	Cedar Falls, IA
Criterion Inc.	Waterloo, IA
Geater Machine, Inc.	Independence, IA
GMT Corporation	Waverly, IA
Hawkeye Tool & Die	Jesup, IA
Iowa Laser Technology	Cedar Falls, IA
John Deere	Waterloo, IA
Viking Pump	Cedar Falls, IA

Program Contacts

Department Secretary
Deb Hacker
Buchanan Hall 103
319-296-4009
Email me

Program Advisors
Keith Siers
Buchanan Hall 120-D
319-296-4436
Email me

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 Tooling Technology at Hawkeye

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Sequence of Study

| CNC Machining and Tooling Technology | Diploma Option | Certificate 1 Option | Certificate 2 Option |

Degree Awarded: AAS
Program Start: Fall only

View course descriptions

Semester 1

MAT772	Applied Math OR	3
	Math Elective	3
MFG122	Machine Trade Printreading I	3
MFG211	Basic Machine Theory	2
MFG222	Machine Operations I	4
MFG305	CNC Operations	2
MFG308	CNC Programming Theory	4

Total Credits 18

Semester 2

COM781	Written Communication in the Workplace OR	3
ENG105	Composition I	3
MFG142	Geometric Dimensioning and Tolerancing	3
MFG214	Advanced Machine Theory	2
MFG228	Machine Operations II	4
MFG306	CNC Operations II	2
MFG309	CNC Programming Theory II	4

Total Credits 18

Program Contacts

Department Secretary
Deb Hacker
Buchanan Hall 103
319-296-4009
Email me

Program Advisors
Keith Siers
Buchanan Hall 120-D
319-296-4436
Email me

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 Tooling Technology at Hawkeye

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Semester 3

MFG321	Computer Aided Machining	4
MFG363	Hydraulic Jigs and Fixtures	3
MFG380	EDM Fundamentals	2

Total Credits 9

Semester 4

MFG404	Basic Diemaking	6
MFG410	CAD Die Design	3
SPC101	Fundamentals of Oral Communication	3
WEL402	Tool Steel Welding and Heat Treatment	2

Total Credits 14

Semester 5

MFG107	Introduction to 3D Modeling	3
MFG430	Tooling Maintenance and Revision	4
MFG461	Plastics Materials	2
MFG525	CMM Inspection and SPC	3
PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology	3
SOC110	Introduction to Sociology	3

Total Credits 15

Math Electives

MAT110	Math for Liberal Arts	3
MAT122	College Algebra	5
MAT128	Precalculus	4
MAT134	Trigonometry and Analytic Geometry	3
MAT156	Statistics	3
MAT210	Calculus I	4
MAT216	Calculus II	4

Sequence of Study

| CNC Machining and Tooling Technology | Diploma Option | Certificate 1 Option | Certificate 2 Option |

Degree Awarded: Diploma
Program Start: Fall only

View course descriptions

Semester 1

MAT772	Applied Math OR	3
	Math Elective	3
MFG122	Machine Trade Printreading I	3
MFG211	Basic Machine Theory	2
MFG222	Machine Operations I	4
MFG305	CNC Operations	2
MFG308	CNC Programming Theory	4

Total Credits 18

Semester 2

COM781	Written Communication in the Workplace OR	3
ENG105	Composition I	3
MFG142	Geometric Dimensioning and Tolerancing	3
MFG214	Advanced Machine Theory	2
MFG228	Machine Operations II	4
MFG306	CNC Operations II	2
MFG309	CNC Programming Theory II	4

Total Credits 18

Program Contacts

Department Secretary
Deb Hacker
Buchanan Hall 103
319-296-4009
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319-296-4436
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319-296-2329 ext.1430
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Dean
Ray Beets
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319-296-4042
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CNC Machining and Tooling Technology at Hawkeye

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Semester 3		
MFG321	Computer Aided Machining	4
MFG363	Hydraulic Jigs and Fixtures	3
MFG380	EDM Fundamentals	2

Total Credits 9

Math Electives		
MAT110	Math for Liberal Arts	3
MAT122	College Algebra	5
MAT128	Precalculus	4
MAT134	Trigonometry and Analytic Geometry	3
MAT156	Statistics	3
MAT210	Calculus I	4
MAT216	Calculus II	4
MAT219	Calculus III	4

Sequence of Study

CNC Machining and Tooling Technology	Diploma Option	Certificate 1 Option	Certificate 2 Option

Degree Awarded: Certificate
Program Start: Fall only

View course descriptions

Semester 1

MAT772	Applied Math OR	3
	Math Elective	3
MFG122	Machine Trade Printreading I	3
MFG211	Basic Machine Theory	2
MFG222	Machine Operations I	4
MFG305	CNC Operations	2
MFG308	CNC Programming Theory	4

Total Credits 18

Math Electives

MAT110	Math for Liberal Arts	3
MAT122	College Algebra	5
MAT128	Precalculus	4
MAT134	Trigonometry and Analytic Geometry	3
MAT156	Statistics	3
MAT210	Calculus I	4
MAT216	Calculus II	4
MAT219	Calculus III	4

Program Contacts

Department Secretary
Deb Hacker
Buchanan Hall 103
319-296-4009
Email me

Program Advisors
Keith Siers
Buchanan Hall 120-D
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 Tooling Technology at Hawkeye

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Sequence of Study

CNC Machining and Tooling Technology	Diploma Option	Certificate 1 Option	Certificate 2 Option

Degree Awarded: Certificate
Program Start: Fall only

View course descriptions

Semester 1

MAT772	Applied Math OR Math Elective	3
MFG122	Machine Trade Printreading I	3
MFG211	Basic Machine Theory	2
MFG222	Machine Operations I	4
MFG305	CNC Operations	2
MFG308	CNC Programming Theory	4

Total Credits 18

Semester 2

COM781	Written Communication in the Workplace OR	3
ENG105	Composition I	3
MFG142	Geometric Dimensioning and Tolerancing	3
MFG214	Advanced Machine Theory	2
MFG228	Machine Operations II	4
MFG306	CNC Operations II	2
MFG309	CNC Programming Theory II	4

Total Credits 18

Program Contacts

Department Secretary
Deb Hacker
Buchanan Hall 103
319-296-4009
Email me

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Keith Siers
Buchanan Hall 120-D
319-296-4436
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Jamie Dettmer
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319-296-2329 ext.1430
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Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me

CNC Machining and Tooling Technology at Hawkeye

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Math Electives		
MAT 110	Math for Liberal Arts	3
MAT 122	College Algebra	5
MAT 128	Precalculus	4
MAT 134	Trigonometry and Analytic Geometry	3
MAT 156	Statistics	3
MAT 210	Calculus I	4
MAT 216	Calculus II	4
MAT 219	Calculus III	4

Electronics Engineering Technology

The Electronics Engineering Technology program provides students with broad-based knowledge and skills in medical electronics, 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 sonar, 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.

Program Contacts

Department Secretary
Deb Hacker
Buchanan Hall 103
319-296-4009
Email me

Program Advisors
Steve Novak
Bremer Hall 136-A
319-296-2329 ext.1308
Email me

Greg Steffen
Bremer Hall 131-A
319-296-2329 ext.1394
Email me

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me

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Program Admission Requirements

1. Be a high school graduate or equivalent.

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 admission into the Electronics Engineering Technology program, you must score at least the following sub scores on the ACT or the COMPASS assessment:

   ACT sub scores

   - 19 - Math
   - 19 - Reading
   - 19 - English

   COMPASS scores

   - 42 - Algebra
   - 82 - Reading
   - 65 - Writing

   OR

   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

   OR

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

Admissions Process

1. Send your transcripts and test scores to the Admissions office.

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 inactivated and will be sent an Admissions Inactivation Letter.
   b. Applicants who meet 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 admissions application was completed. The application date will be used to prioritize acceptance if needed.

Program Contacts

Department Secretary
Deb Hacker
Buchanan Hall 103
319-296-4009
Email me

Program Advisors
Steve Novak
Bremer Hall 136-A
319-296-2329 ext.1308
Email me

Greg Steffen
Bremer Hall 131-A
319-296-2329 ext.1394
Email me

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me

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

Hawkeye's Equal Opportunity Statement

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Careers

Our graduates work in a variety of settings including:

- Medical electronics technician
- Radio - TV broadcast 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
- Computer specialist

Placement

Starting Wages: $43,000 - $53,000 per year*

*Source: Iowa Workforce Development

Employers

ConAgra Foods	Waterloo, IA
DISTek Integration	Cedar Falls, IA
IBM	Rochester, MN
John Deere	Waterloo, IA
Rockwell Collins, Inc.	Cedar Rapids, IA
Schumacher Elevator	Denver, IA
Tyson Fresh Meats, Inc.	Waterloo, IA

Program Contacts

Department Secretary
Deb Hacker
Buchanan Hall 103
319-296-4009
Email me

Program Advisors
Steve Novak
Bremer Hall 136-A
319-296-2329 ext.1308
Email me

Greg Steffen
Bremer Hall 131-A
319-296-2329 ext.1394
Email me

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me

Sequence of Study

| Electronics Engineering Technology | Mechanical Emphasis | Diploma Option | Certificate Option |

Degree Awarded: AAS
Program Start: Fall only

<u>View course descriptions</u>

Semester 1

COM781	Written Communication in the Workplace OR	3
ENG105	Composition I	3
ELT192	Intro to EET Computer Science	3
ELT290	DC Electricity	4
ELT291	AC Electricity	4
ELT512	Electronic Fabrication	2
MAT504	Electronics Math I	4

Total Credits 20

Semester 2

ELT104	Electronics Drafting	3
ELT320	Electronic Devices	5
ELT321	Operational Amplifiers	3
ELT600	Applied Computer Programming	3
MAT514	Electronics Math II	4

Total Credits 18

Semester 3

ELT311	Digital Circuits and Systems	4

Program Contacts

Department Secretary
Deb Hacker
Buchanan Hall 103
319-296-4009
Email me

Program Advisors
Steve Novak
Bremer Hall 136-A
319-296-2329 ext.1308
Email me

Greg Steffen
Bremer Hall 131-A
319-296-2329 ext.1394
Email me

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me

PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3

Total Credits 7

Semester 4

ELT194	C++ Programming	3
ELT415	Communication Circuits I	5
ELT605	Operating Systems	3
ELT700	Microprocessors	3
ELT702	Microcomputer Hardware	2
ELT802	Electronics Design Project I	1
PHY183	Applied Physics	3

Total Credits 20

Semester 5

ELT156	Industrial Electronics	5
ELT416	Communication Circuits II	5
ELT701	Embedded Processors	3
ELT703	Introduction to Networking	2
ELT803	Electronics Design Project II	1
SPC101	Fundamentals of Oral Communication	3

Total Credits 19

Sequence of Study

Electronics Engineering Technology | **Mechanical Emphasis** | **Diploma Option** | **Certificate Option**

Degree Awarded: AAS
Program Start: Fall only

[View course descriptions](#)

Semester 1

Code	Course	Credits
COM781	Written Communication in the Workplace OR	3
ENG105	Composition I	3
ELT192	Intro to EET Computer Science	3
ELT290	DC Electricity	4
ELT291	AC Electricity	4
ELT512	Electronic Fabrication	2
MAT504	Electronics Math I	4

Total Credits 20

Semester 2

Code	Course	Credits
ELT104	Electronics Drafting	3
ELT320	Electronic Devices	5
ELT321	Operational Amplifiers	3
ELT600	Applied Computer Programming	3
MAT514	Electronics Math II	4

Total Credits 18

Semester 3

Code	Course	Credits
EGT140	Fluid Power	2

EGT144	Fluid Power Applications	2
ELT311	Digital Circuits and Systems	4

Total Credits 8

Semester 4

ELT415	Communication Circuits I	5
ELT605	Operating Systems	3
ELT700	Microprocessors	3
ELT702	Microcomputer Hardware	2
ELT802	Electronics Design Project I	1
PHY183	Applied Physics	3
PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3

Total Credits 20

Semester 5

EGT152	Advanced Fluid Power and Servo Systems	2
ELT156	Industrial Electronics	5
ELT703	Introduction to Networking	2
ELT803	Electronics Design Project II	1
IND100	Basic Mechanical Systems	2
IND111	Industrial Safety Mechanical Systems	1
IND145	Mechanical Power Transfer	2
SPC101	Fundamentals of Oral Communication	3

Total Credits 18

Sequence of Study

Electronics Engineering Technology	Mechanical Emphasis	Diploma Option	Certificate Option

Degree Awarded: Diploma
Program Start: Fall only

View course descriptions

Program Contacts

Department Secretary
Deb Hacker
Buchanan Hall 103
319-296-4009
Email me

Program Advisors
Steve Novak
Bremer Hall 136-A
319-296-2329 ext.1308
Email me

Greg Steffen
Bremer Hall 131-A
319-296-2329 ext.1394
Email me

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me

Semester 1

COM781	Written Communication in the Workplace OR	3
ENG105	Composition I	3
ELT192	Intro to EET Computer Science	3
ELT290	DC Electricity	4
ELT291	AC Electricity	4
ELT512	Electronic Fabrication	2
MAT504	Electronics Math I	4

Total Credits 20

Semester 2

ELT104	Electronics Drafting	3
ELT320	Electronic Devices	5
ELT321	Operational Amplifiers	3
MAT514	Electronics Math II	4

Total Credits 15

Semester 3

ELT311	Digital Circuits and Systems	4
PHY183	Applied Physics	3

PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3

Total Credits 10

Sequence of Study

Electronics Engineering Technology | **Mechanical Emphasis** | **Diploma Option** | **Certificate Option**

Degree Awarded: Certificate
Program Start: Fall only

View course descriptions

Program Contacts

Department Secretary
Deb Hacker
Buchanan Hall 103
319-296-4009
Email me

Program Advisors
Steve Novak
Bremer Hall 136-A
319-296-2329 ext.1308
Email me

Greg Steffen
Bremer Hall 131-A
319-296-2329 ext.1394
Email me

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me

Semester 1

ELT290	DC Electricity	4
ELT291	AC Electricity	4
MAT504	Electronics Math I	4
	Total Credits	**12**

Semester 2

ELT320	Electronic Devices	5
ELT321	Operational Amplifiers	3
MAT514	Electronics Math II	4
	Total Credits	**12**

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Program Contacts

Department Secretary
Deb Hacker
Buchanan Hall 103
319-296-4009
Email me

Program Advisors
Randy Lowe
Bremer Hall 146-A
319-296-4010
Email me

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me

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.

Program Admission Requirements

1. Be a high school graduate or equivalent.

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 admission into the Heating and Air Conditioning program, you must score at least the following sub scores on the ACT or the COMPASS assessment:

   ACT sub scores

   - 19 - Math
   - 19 - Reading
   - 19 - English

   COMPASS scores

   - 24 - Pre-Algebra
   - 82 - Reading
   - 41 - Writing

   OR

   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

   OR

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

Admissions Process

1. Send your transcripts and test scores to the Admissions office.

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 inactivated and will be sent an Admissions Inactivation Letter.

   b. Applicants who meet 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 of the completed applicant file. The application date will be used to prioritize acceptance if needed.

Program Contacts

Department Secretary
Deb Hacker
Buchanan Hall 103
319-296-4009
Email me

Program Advisors
Randy Lowe
Bremer Hall 146-A
319-296-4010
Email me

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me

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

Hawkeye's Equal Opportunity Statement

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Careers

Graduates have a variety of career options including working for dealers, distributors, and commercial business as service technicians and installers.

Placement

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

In 2006, there were about 292,000 jobs in heating, air conditioning, and refrigeration for technicians and installers.

Employers

AY McDonald Supply	Waterloo, IA
Fereday Heating & Cooling	Waterloo, IA
H&H Heating & Air Conditioning	Waterloo, IA
Jim Hundley Heating & Air Conditioning	Janesville, IA
Young Plumbing & Heating	Waterloo, IA

*Source: Iowa Workforce Development

Program Contacts

Department Secretary
Deb Hacker
Buchanan Hall 103
319-296-4009
Email me

Program Advisors
Randy Lowe
Bremer Hall 146-A
319-296-4010
Email me

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me

Sequence of Study

Heating and Air Conditioning

Degree Awarded: Diploma
Program Start: Fall only

View course descriptions

Semester 1

HCR265	Applied Practices I	5
HCR402	Applied Electricity for HVACR	3
HCR444	HVACR Systems I	4
IND181	Heating, Ventilating, and Air Conditioning Systems	2
MAT772	Applied Math OR	3
	Math Elective	3

Total Credits 17

Semester 2

HCR113	Boiler Fundamentals	2
HCR275	Applied Practices II	5
HCR414	Controls for HVACR	4
HCR516	HVACR Systems II	6
HCR852	Operation Strategies	2

Total Credits 19

* Students can take COM730, ENG105 and SPC101, or COM781 and SPC101.

Semester 3

HCR127	Hydronic Heating Systems	2
HCR429	HVAC App Controls with Autom Sys	2

Program Contacts

Department Secretary
Deb Hacker
Buchanan Hall 103
319-296-4009
Email me

Program Advisors
Randy Lowe
Bremer Hall 146-A
319-296-4010
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Dean
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319-296-4042
Email me

| HCR602 | HVACR Systems III | 2 |
| HCR912 | HVACR Field Experience | 2 |

Total Credits 8

Math Electives		
MAT110	Math for Liberal Arts	3
MAT122	College Algebra	5
MAT128	Precalculus	4
MAT134	Trigonometry and Analytic Geometry	3
MAT156	Statistics	3
MAT210	Calculus I	4
MAT216	Calculus II	4
MAT219	Calculus III	4

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.

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Program Contacts

Department Secretary
Deb Hacker
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 136-A
319-296-2329 ext.1730
Email me

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me

Program Admission Requirements

1. Be a high school graduate or equivalent.

2. Complete an Admissions Application for the Industrial Automation Technology program.

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 admission into the Industrial Automation Technology program, you must score at least the following sub scores on the ACT or the COMPASS assessment:

   ACT sub scores

   - 19 - Math
   - 19 - Reading
   - 19 - English

   COMPASS scores

   - 24 - Pre-Algebra
   - 82 - Reading
   - 65 - Writing

   OR

   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

   OR

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

Admissions Process

1. Send your transcripts and test scores to the Admissions office.

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 inactivated and will be sent an Admissions Inactivation Letter.

   b. Applicants who meet the program's admission requirements will be acceptable for admission.

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

Program Contacts

Department Secretary
Deb Hacker
Buchanan Hall 103
319-296-4009
Email me

Program Advisors
Doug Kruger
Butler Hall 138D
319-296-2329 ext.1303
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Dan Utley
Butler Hall 136-A
319-296-2329 ext.1730
Email me

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me

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

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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 - $43,000 per year*

*Source: Iowa Workforce Development

Employers

ConAgra Foods	Waterloo, IA
John Deere	Waterloo, IA
Nestle U.S.A.	Waverly, IA
Rockwell Automation	Cedar Rapids, IA
Tyson Fresh Meats, Inc.	Waterloo, IA
University of Northern Iowa	Cedar Falls, IA

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Buchanan Hall 103
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Doug Kruger
Butler Hall 138D
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Dan Utley
Butler Hall 136-A
319-296-2329 ext.1730
Email me

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me

Sequence of Study

Industrial Automation Technology	Diploma Option	Certificate 1 Option	Certificate 2 Option

Degree Awarded: AAS
Program Start:

View course descriptions

Semester 1

EGT140	Fluid Power*	2
EGT149	Fluid Power Systems II**	3
ELT139	Electrical Systems*	3
ELT149	Advanced Electrical Systems**	2
ELT192	Intro to EET Computer Science	3
MAT772	Applied Math* OR Math Elective	3 / 3
MAT778	Applied Geometry/ Trigonometry**	3

Total Credits 19

Semester 2

COM781 / ENG105	Written Communication in the Workplace OR Composition I	3 / 3
EGT144	Fluid Power Applications*	2
ELT215	Motors and Controls*	2
ELT234	PLC Programming**	2
IND100	Basic Mechanical Systems*	2
IND111	Industrial Safety Mechanical Systems**	1
MFG153	Basic Blueprint Reading	3

PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3

Total Credits 18

Semester 3

| MFG193 | Machine Shop Processes | 3 |
| WEL339 | Electromechanical Maintenance | 3 |

Total Credits 6

Semester 4

EGT152	Advanced Fluid Power and Servo Systems	2
ELT103	Facilities Blueprint Reading	3
ELT104	Electronics Drafting	3
ELT590	Semiconductors	5
ELT736	Instrumentation & Control	2
MFG111	Machinery s Handbook	1
MFG202	Manufacturing Processes	2

Total Credits 18

Semester 5

ELT133	Electric Motor Drives	2
ELT240	PLCs II	2
ELT309	Digital Circuits	3
ELT610	Microprocessors	2
MFG514	Machine Maintenance	4
MFG802	Systems Integration	2
SPC101	Fundamentals of Oral Communication	3

Total Credits 18

* Phase I - 1st 8 weeks of the semester.
** Phase II - 2nd 8 weeks of the semester.

Math Electives

MAT 110	Math for Liberal Arts	3
MAT 122	College Algebra	5
MAT 128	Precalculus	4
MAT 134	Trigonometry and Analytic Geometry	3
MAT 156	Statistics	3
MAT 210	Calculus I	4
MAT 216	Calculus II	4
MAT 219	Calculus III	4

Sequence of Study

Industrial Automation Technology	Diploma Option	Certificate 1 Option	Certificate 2 Option

Degree Awarded: Diploma
Program Start:

[View course descriptions](#)

* Phase I - 1st 8 weeks of the semester.
** Phase II - 2nd 8 weeks of the semester.

Semester 1

EGT140	Fluid Power*	2
EGT149	Fluid Power Systems II**	3
ELT139	Electrical Systems*	3
ELT149	Advanced Electrical Systems**	2
ELT192	Intro to EET Computer Science	3
MAT772	Applied Math* OR Math Elective	3
MAT778	Applied Geometry/ Trigonometry**	3

Total Credits 19

Semester 2

COM781	Written Communication in the Workplace OR	3
ENG105	Composition I	3
EGT144	Fluid Power Applications*	2
ELT215	Motors and Controls*	2
ELT234	PLC Programming**	2
IND100	Basic Mechanical Systems*	2
IND111	Industrial Safety Mechanical Systems**	1

MFG153	Basic Blueprint Reading	3

PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3

Total Credits 18

Semester 3

MFG193	Machine Shop Processes	3

WEL339	Electromechanical Maintenance	3

Total Credits 6

Math Electives

MAT110	Math for Liberal Arts	3

MAT122	College Algebra	5

MAT128	Precalculus	4

MAT134	Trigonometry and Analytic Geometry	3

MAT156	Statistics	3

MAT210	Calculus I	4

MAT216	Calculus II	4

MAT219	Calculus III	4

Sequence of Study

| Industrial Automation Technology | Diploma Option | Certificate 1 Option | Certificate 2 Option |

Degree Awarded: Certificate
Program Start:

View course descriptions

Program Contacts

Department Secretary
Deb Hacker
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 136-A
319-296-2329 ext.1730
Email me

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me

Semester 1

EGT140	Fluid Power	2
EGT149	Fluid Power Systems II	3
ELT139	Electrical Systems	3
ELT149	Advanced Electrical Systems	2
MAT772	Applied Math	3

Total Credits 13

Semester 2

EGT144	Fluid Power Applications	2
ELT103	Facilities Blueprint Reading	3
ELT215	Motors and Controls	2
IND100	Basic Mechanical Systems	2

Total Credits 9

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Sequence of Study

| Industrial Automation Technology | Diploma Option | Certificate 1 Option | Certificate 2 Option |

Degree Awarded: Certificate
Program Start:

View course descriptions

Program Contacts

Department Secretary
Deb Hacker
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 136-A
319-296-2329 ext.1730
Email me

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me

Semester 1

EGT140	Fluid Power	2
EGT149	Fluid Power Systems II	3
ELT139	Electrical Systems	3
ELT149	Advanced Electrical Systems	2
MAT772	Applied Math	3

Total Credits 13

Semester 2

EGT144	Fluid Power Applications	2
ELT103	Facilities Blueprint Reading	3
ELT215	Motors and Controls	2
IND100	Basic Mechanical Systems	2
IND145	Mechanical Power Transfer	2

Total Credits 11

College Catalog | Next Page >

Program Contacts

Department Secretary
Deb Hacker
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

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.

Night Program
Earn diploma at night! With evening classes starting at 3:00pm. The night program allows you to work and go to school at the same time.

Partnerships
Welders are in high demand. Hawkeye has a unique training partnership with John Deere to train and hire individuals from this program.

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.

Program Admission Requirements

1. Be a high school graduate or equivalent.

2. Apply at Hawkeye.

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

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

   For admission into the Welding program, you must score at least the following sub scores on the ACT or the COMPASS assessment:

   ACT sub scores

   - 19 - Math
   - 19 - Reading
   - 19 - English

   COMPASS scores

   - 24 - Pre-Algebra
   - 69 - Reading
   - 41 - Writing

   OR

   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
   - MAT045 Fundamentals of Math
   - RDG039 College Preparatory Reading II

   OR

   Any combination of the above options fulfilling the basic skills requirements in algebra, reading, and writing.

Admissions Process

1. Send your transcripts and test scores to the Admissions office.

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 inactivated and will be sent an Admissions Inactivation Letter.

   b. Applicants who meet the program's admission requirements will be acceptable for admission.

3. We accept approximately 30 students and 30 alternates each Fall and Spring semester. Applicants will be accepted based on the date their applicant file was completed. If many

Program Contacts

Department Secretary
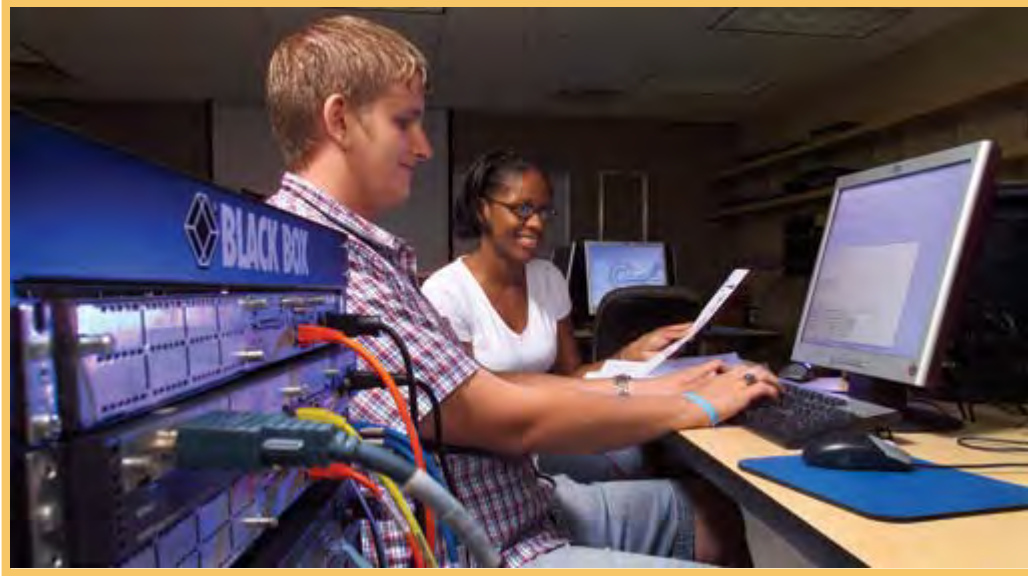Deb Hacker
Buchanan Hall 103
319-296-4009
Email me

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

students share the same date for completing their applicant file, the date you submitted your application, if needed, 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 the next semester.

5. If you are offered acceptance to begin the Welding 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 Nondiscrimination Statement

Careers

Graduates of the Welding program enter the industry as beginning maintenance or job shop welders.

Placement

Starting Wages: $26,000 - $33,500 per year*

Many graduates in this field work an average of 10 hours of overtime per week. These additional wages are not included in the above starting wages.

Iowa Workforce Development forecasts more than 335 job openings each year for welders through 2018. Welders, cutters, solderers, and brazers are some of the top occupations in Iowa with the most job openings.

*Source: Iowa Workforce Development

Employers

ADA Enterprises	Northwood, IA
Baumgartner Gate Factory	Manchester, IA
GMT Corporation	Waverly, IA
Iowa Laser	Cedar Falls, IA
John Deere	Waterloo, IA Ottumwa, IA
Terex Cranes, Inc.	Waverly, IA
Wayne Engineering	Cedar Falls, IA

Program Contacts

Department Secretary
Deb Hacker
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

Sequence of Study

Welding   **Certificate Option**

Degree Awarded: Diploma
Program Start: Fall and Spring

View course descriptions

Semester 1

MAT772	Applied Math	3
WEL111	Welding Blueprint Reading	3
WEL134	Cutting Processes	2
WEL155	Arc Welding I (SMAW)	4
WEL186	GMAW OR	4
WEL104	Introduction to MIG Welding	2

Total Credits 16

Semester 2

COM730	Communications	3
WEL112	Welding Blueprint Reading/ Advanced	2
WEL164	Arc Welding II (SMAW)	4
WEL187	Advanced GMAW	4

Total Credits 13

Semester 3

WEL125	Fusion and Braze Welding	2
WEL191	Gas Tungsten Arc Welding	3
WEL303	Pipe Welding/ SMAW	3

Program Contacts

Department Secretary
Deb Hacker
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

| WEL710 | Robotic Welding | 6 |

Total Credits 14

Sequence of Study

Welding | **Certificate Option**

Degree Awarded: Certificate
Program Start: Fall and Spring

View course descriptions

Semester 1		
MAT772	Applied Math	3
WEL111	Welding Blueprint Reading	3
WEL134	Cutting Processes	2
WEL155	Arc Welding I (SMAW)	4
WEL186	GMAW OR	4
WEL104	Introduction to MIG Welding	2

Total Credits 16

Program Contacts

Department Secretary
Deb Hacker
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

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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.

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.

Program Admission Requirements

1. Be a high school graduate or equivalent.

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 admission into the Computer Networking Technician program, you must score at least the following sub scores on the ACT or the COMPASS assessment:

   ACT sub scores

   - 19 - Math
   - 19 - Reading
   - 19 - English

   COMPASS scores

   - 42 - Algebra
   - 82 - Reading
   - 65 - Writing

   OR

   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

   OR

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

Admissions Process

1. Send your transcripts and test scores to the Admissions office.

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 inactivated and will be sent an Admissions Inactivation Letter.

   b. Applicants who meet 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 applicant file was completed. If many students share the same date for completing their applicant file, the date you submitted your application, if needed, will be

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

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 Fall Semester.

Hawkeye's Equal Opportunity Statement

College Catalog | Next Page >

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

Credit Bureau Enterprises	Waterloo, IA
Hawkeye Community College	Waterloo, IA
Martin Brothers Distributing	Cedar Falls, IA
PFGBest	Cedar Falls, IA

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

Sequence of Study

Information Systems Management

Degree Awarded: AAS
Program Start: Fall only

View course descriptions

Semester 1

CSC110	Introduction to Computers OR	3
BCA205	Database/Spreadsheets	3
MAT110	Math for Liberal Arts OR	3
	Math Elective	3
NET109	A+ Certification Prep	4
NET217	CCNA Exploration Network Fundamentals	3
NET218	CCNA Exploration Routing Concepts	3

Total Credits 16

Semester 2

CIS303	Introduction to Database	3
COM781	Written Communication in the Workplace OR	3
ENG105	Composition I	3
NET219	CCNA Exploration Switching and Wireless	3
NET313	Windows Server	3
PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3

Total Credits 15

Semester 3

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

ACC131	Principles of Accounting I	4
BUS102	Introduction to Business	3
MAT156	Statistics	3
MGT101	Principles of Management	3
SPC101	Fundamentals of Oral Communication	3

Total Credits 16

Semester 4		
ACC132	Principles of Accounting II	4
CIS750	Project Management	3
MGT170	Human Resource Management	3
	Information Technology Elective	3

Total Credits 13

Math Electives		
MAT122	College Algebra	5
MAT134	Trigonometry and Analytic Geometry	3
MAT210	Calculus I	4

Information Technology Electives		
BCA183	Basic Web Design Software	2
BCA232	Multimedia for Web Design	3
BUS183	Business Law	3
CIS206	Web Scripting	3
CIS215	Server Side Web Programming	3
CIS217	Data Driven Web Page	3
CIS225	Advanced Server Side Web Programming	3
CIS231	PHP Programming	3
CIS234	Web Site Administration	3
CIS249	Web Languages	3

CIS274	E-Commerce Design	3
GRA150	Introduction to Web Design	3
GRA162	Web Page Graphics	3
NET152	Advanced Network Technologies	3
NET220	CCNA Exploration Accessing the WAN	3
NET343	Windows Directory Services	3
NET346	Windows Exchange Server	3
NET412	Linux System Administration	3
NET474	Certification Preparation	1
NET612	Fundamentals of Network Security	3
NET932	Internship	3

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

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 MCTS, 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. Students also learn server administration, database and mail servers, and project management.

Students design, layout, and write specifications for the implementing networks. Students learn to set-up, maintain, and support networks, servers, and security.

Hawkeye's Cisco Regional and Microsoft IT Academics 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.

Program Admission Requirements

1. Be a high school graduate or equivalent.

2. <u>Apply at Hawkeye.</u>

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 admission into the Computer Networking Technician program, you must score at least the following sub scores on the ACT or the COMPASS assessment:

   ACT sub scores

   - 19 - Math
   - 19 - Reading
   - 19 - English

   COMPASS scores

   - 42 - Algebra
   - 82 - Reading
   - 65 - Writing

   OR

   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

   OR

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

Admissions Process

1. Send your transcripts and test scores to the <u>Admissions office</u>.

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   a. Applicants who do not meet the program's admission requirements will be inactivated and will be sent an Admissions Inactivation Letter.

   b. Applicants who meet 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 applicant file was completed. If many students share the same date for completing their applicant file, the date you submitted your application, if needed, will be

Program Contacts

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

Program Advisor
Todd Bengen
Black Hawk Hall 186
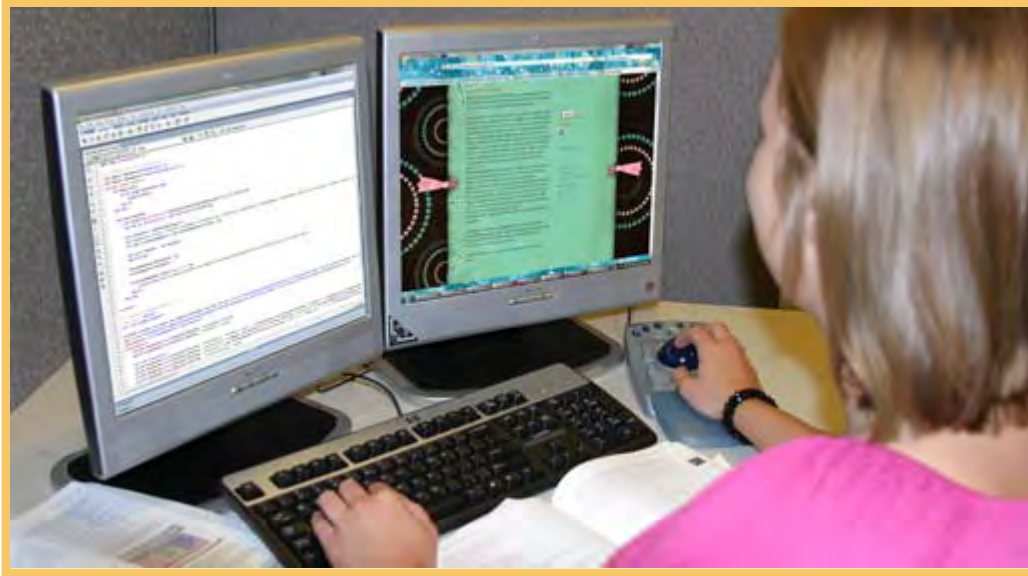319-296-2329 ext.1124
Email me

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 Fall Semester.

Hawkeye's Equal Opportunity Statement

Careers

Graduates accept employment in positions such as network administrator, network technician, LAN/WAN engineer, or LAN/WAN administrator.

Placement

Starting Wages: $35,000 - $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

Aerial Services of Iowa	Cedar Falls, IA
Cedar Valley Corporation	Waterloo, IA
Isle of Capri Casino	Waterloo, IA
Jesup Community Schools	Jesup, IA
Mediacom	Des Moines, IA
Veridian Credit Union	Waterloo, IA

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

Sequence of Study

Network Administration and Engineering	Computer Networking Technician

Degree Awarded: AAS
Program Start:

View course descriptions

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

Semester 1

CSC110	Introduction to Computers OR	3
BCA205	Database/Spreadsheets	3
MAT110	Math for Liberal Arts	3
NET109	A+ Certification Prep	4
NET217	CCNA Exploration Network Fundamentals	3
NET218	CCNA Exploration Routing Concepts	3

Total Credits 16

Semester 2

CIS303	Introduction to Database	3
COM781	Written Communication in the Workplace OR	3
ENG105	Composition I	3
NET219	CCNA Exploration Switching and Wireless	3
NET313	Windows Server	3
PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3

Total Credits 15

Semester 3

NET220	CCNA Exploration Accessing the WAN	3
NET343	Windows Directory Services	3
NET346	Windows Exchange Server	3
NET412	Linux System Administration	3
NET612	Fundamentals of Network Security	3

Total Credits 15

Semester 4		
CIS750	Project Management	3
NET710	SQL Database	2
NET916	Experiential Learning	5
SPC101	Fundamentals of Oral Communication	3
	Information Technology Elective	3

Total Credits 16

Information Technology Elective		
BCA183	Basic Web Design Software	2
BCA232	Multimedia for Web Design	3
CIS206	Web Scripting	3
CIS215	Server Side Web Programming	3
CIS217	Data Driven Web Page	3
CIS225	Advanced Server Side Web Programming	3
CIS231	PHP Programming	3
CIS234	Web Site Administration	3
CIS249	Web Languages	3
CIS274	E-Commerce Design	3
GRA150	Introduction to Web Design	3
GRA162	Web Page Graphics	3
NET152	Advanced Network Technologies	3

Sequence of Study

Network Administration and Engineering	Computer Networking Technician

Degree Awarded: Diploma
Program Start: Fall only

View course descriptions

Semester 1

CSC110	Introduction to Computers OR	3
BCA205	Database/Spreadsheets	3
MAT110	Math for Liberal Arts OR	3
	Math Elective	3
NET109	A+ Certification Prep	4
NET217	CCNA Exploration Network Fundamentals	3
NET218	CCNA Exploration Routing Concepts	3

Total Credits 16

Semester 2

COM781	Written Communication in the Workplace OR	3
ENG105	Composition I	3
NET219	CCNA Exploration Switching and Wireless	3
NET313	Windows Server	3
NET792	Help Desk I	3
PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3

Total Credits 15

Math Electives

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

MAT122	College Algebra	5
MAT128	Precalculus	4
MAT134	Trigonometry and Analytic Geometry	3
MAT156	Statistics	3
MAT210	Calculus I	4
MAT216	Calculus II	4
MAT219	Calculus III	4

Home   Academics   Programs of Study   Information Technology

Program Contacts

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

Program Advisors
MJ Nelson
Black Hawk Hall 185
319-296-2329 ext.1122
Email me

Web Design and Development

The Web Design 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 topcs.

Hawkeye's Information Technology programs are located in Black Hawk Hall. The Information Technology lab equipment, environment, and technology are state-of-the-art.

Industry
Over two-thirds of the world's inhabitants have a mobile subscription, which is driving more Internet users to wireless broadband connections. Google and FCC propose higher speed networks to increase competitiveness. Trained professionals creating and maintaining these sites are growing in demand as more people turn to the web for information and services.

*Statistics from www.websiteoptimization.com/bw/1002

Transfer Information
Students in the Web Design and Development program interested in continuing their education should&[}ca8oþþÁ¦[*¦a¦ Áøaça[¦È

Program Admission Requirements

1. Be a high school graduate or equivalent.

2. <u>Apply at Hawkeye.</u>

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 admission into the Computer Networking Technician program, you must score at least the following sub scores on the ACT or the COMPASS assessment:

   ACT sub scores   **COMPASS scores**

   - 19 - Math   - 42 - Algebra
   - 19 - Reading   - 82 - Reading
   - 19 - English   - 65 - Writing

   OR

   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

   OR

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

Admissions Process

1. Send your transcripts and test scores to the <u>Admissions office</u>.

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 inactivated and 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 applicant file was completed. If many students share the same date for completing their applicant file, the date you submitted your application, if needed, will be

Program Contacts

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

Program Advisors
MJ Nelson
Black Hawk Hall 185
319-296-2329 ext.1122
Email me

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 Fall Semester.

Hawkeye's Equal Opportunity Statement

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: U.S. Department of Labor. Iowa Ways

Program Contacts

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

Program Advisors
MJ Nelson
Black Hawk Hall 185
319-296-2329 ext.1122
Email me

Sequence of Study

Web Design and Development

Degree Awarded: AAS
Program Start: Fall only

View course descriptions

Semester 1

CSC110	Introduction to Computers OR	3
BCA205	Database/Spreadsheets	3
GRA150	Introduction to Web Design	3
GRA162	Web Page Graphics	3
MAT110	Math for Liberal Arts OR	3
	Math Elective	3
NET109	A+ Certification Prep	4

Total Credits 16

Semester 2

BCA183	Basic Web Design Software	2
CIS206	Web Scripting	3
CIS249	Web Languages	3
CIS303	Introduction to Database	3
COM781	Written Communication in the Workplace OR	3
ENG105	Composition I	3
PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3

Total Credits 17

Program Contacts

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

Program Advisors
MJ Nelson
Black Hawk Hall 185
319-296-2329 ext.1122
Email me

Semester 3		
BCA232	Multimedia for Web Design	3
CIS215	Server Side Web Programming	3
CIS231	PHP Programming	3
CIS274	E-Commerce Design	3
SPC101	Fundamentals of Oral Communication	3

Total Credits 15

Semester 4		
CIS217	Data Driven Web Page	3
CIS225	Advanced Server Side Web Programming	3
CIS750	Project Management	3
NET313	Windows Server OR	3
CIS234	Web Site Administration OR	3
NET932	Internship	3
NET916	Experiential Learning	3

Total Credits 15

Math Electives		
MAT122	College Algebra	5
MAT128	Precalculus	4
MAT134	Trigonometry and Analytic Geometry	3
MAT156	Statistics	3
MAT210	Calculus I	4
MAT216	Calculus II	4
MAT219	Calculus III	4

Agricultural Science

The Associate of Science degree is designed to transfer to a four-year college or university and has a greater emphasis in mathematics and science than the Associate in Arts degree.

The Associate of Science in Agricultural Science degree allows graduates to enter four-year colleges or universities with 62 credits and/or junior standing. Students wishing to transfer with this standing must work closely with a Hawkeye academic advisor because specific baccalaureate program requirements vary.

Liberal Arts Core

Category I: Humanities	6 hours minimum
Category II: Natural Sciences & Math	12 hours minimum
Category III: Social Sciences	6 hours minimum
Category IV: Communications	9 hours minimum
Category V: Social Diversity	3 hours minimum

The Associate of Science degree requires a total of 62 credit hours with a minimum of 36 credit hours of liberal arts core credits and the remaining 26 hours as college electives. Up to 16 credit hours of technical courses can be counted toward the 26 hours of electives.

List of courses to fulfill each Liberal Arts Core requirement for an Associate of Science degree at Hawkeye.

Focus Areas
Students who plan to graduate from Hawkeye with an Associate of Science degree in Agricultural Science

may choose to follow the guidelines of a focus area.

We recommend that you work closely with an <u>academic advisor</u> to help you map out the courses you need to take at Hawkeye that will transfer to you school and major of your choice.

Focus	Possible Transfer Majors to Iowa State University
Agronomy	Agronomy
Animal Science	Animal Science Pre-Veterinary Medicine
Agricultural Business	Ag Business
Agriculture Education	Ag Education
Agricultural Studies	Ag Studies
Horticulture	Horticulture
Natural Resources	Animal Ecology Ecology

Undecided?

If you are undecided about which focus area you would like to pursue, you should meet with an <u>academic counselor</u> and <u>academic advisor</u> at Hawkeye.

Program Admissions Requirements

1. Be a high school graduate or equivalent.

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, you must score at least 19 on the ACT assessment in Reading, Math, and English or take the COMPASS assessment.

   Depending on your COMPASS scores, you may need to complete college success courses with a "C" grade or higher at Hawkeye Community College or comparable courses at another accredited college.

   Assessment may be waived based on courses taken, credits earned, and grades received at a previous college. Please send your official college transcripts to the Admissions office for evaluation.

Program Contacts

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

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

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me

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Program Contacts

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

Program Advisor A-D
Todd Stabenow
Black Hawk Hall 253
319-296-2329 ext.1375
Email me

Program Advisor E-J
Joseph Toe
Black Hawk Hall 182
319-296-2329 ext.1376
Email me

Program Advisor K-Q
Deb Weber
Black Hawk Hall 254
319-296-2329 ext.1743
Email me

Program Advisor R-Z
Roger Davis
Black Hawk Hall 181
319-296-2329 ext.1754
Email me

Business Administration

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.

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Program Admission Requirements

1. Be a high school graduate or equivalent.

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, you must score at least 19 on the ACT assessment in Reading, Math, and English or take the COMPASS assessment.

   Depending on your COMPASS scores, you may need to complete college success courses with a "C" grade or higher at Hawkeye Community College or comparable courses at another accredited college.

   Assessment may be waived based on courses taken, credits earned, and grades received at a previous college. Please send your official college transcripts to the Admissions office for evaluation.

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Program Contacts

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

Program Advisor A-D
Todd Stabenow
Black Hawk Hall 253
319-296-2329 ext.1375
Email me

Program Advisor E-J
Joseph Toe
Black Hawk Hall 182
319-296-2329 ext.1376
Email me

Program Advisor K-Q
Deb Weber
Black Hawk Hall 254
319-296-2329 ext.1743
Email me

Program Advisor R-Z
Roger Davis
Black Hawk Hall 181
319-296-2329 ext.1754
Email me

Sequence of Study

Business Administration

Degree Awarded: AA
Program Start: Fall, Spring, and Summer

View course descriptions

Semester 1

BCA201	Introduction to Info Systems**	3
ECN120	Principles of Macroeconomics	3
ENG105	Composition I	3
HIS117	Western Civilization I: Ancient and Medieval OR	3
HIS118	Western Civilization II: Early Modern OR	3
HIS119	Western Civilization III: The Modern Period	3
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3

Total Credits 15

Semester 2

ECN130	Principles of Microeconomics	3
ENG106	Composition II	3
MAT156	Statistics	3
	Social Diversity*	3
	Humanities (Literature and Fine Arts)*	3
	Humanities (Philosophy and Religion)*	3

Total Credits 15

Semester 3

ACC131	Principles of Accounting I	4

Program Contacts

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

Program Advisor A-D
Todd Stabenow
Black Hawk Hall 253
319-296-2329 ext.1375
Email me

Program Advisor E-J
Joseph Toe
Black Hawk Hall 182
319-296-2329 ext.1376
Email me

Program Advisor K-Q
Deb Weber
Black Hawk Hall 254
319-296-2329 ext.1743
Email me

Program Advisor R-Z
Roger Davis
Black Hawk Hall 181
319-296-2329 ext.1754
Email me

BUS210	Business Statistics**	3

HIS151	U.S. History to 1877 OR	3
HIS152	U.S. History Since 1877 OR	3
POL111	American National Government	3

	Biological Science*	4
	Physical Science*	4

	Humanities (Non-Western Culture)*	3

Total Credits 17

Semester 4

ACC132	Principles of Accounting II	4

BUS230	Quantitative Methods for Business Decision Making**	3

SPC101	Fundamentals of Oral Communication	3

	Biological Science*	3
	Physical Science*	3

	General Social Sciences*	3

Total Credits 16

* View the Associate of Arts degree for course options.

**Students planning to transfer to a college other than the University of Northern Iowa, should work with their advisor for approved business courses.

Program Contacts

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

Program Advisors
Stephan Kaftan
Black Hawk Hall 159
319-296-2329 ext.1589
Email me

Corrections

The Corrections 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 Corrections degree enables graduates to enter four-year institutions with junior standing in Corrections. If graduates decide to postpone their transfer, the courses in the program could prepare the associate degree graduate for entry-level employment in the corrections 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.

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Admission Requirements

1. Be a high school graduate or equivalent.

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, you must score at least 19 on the ACT assessment in Reading, Math, and English or take the COMPASS assessment.

   Depending on your COMPASS scores, you may need to complete college success courses with a "C" grade or higher at Hawkeye Community College or comparable courses at another accredited college.

   Assessment may be waived based on courses taken, credits earned, and grades received at a previous college. Please send your official college transcripts to the Admissions office for evaluation.

Program Contacts

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

Program Advisors
Stephan Kaftan
Black Hawk Hall 159
319-296-2329 ext.1589
Email me

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Degree Requirements

Corrections

Degree Awarded: AA
Program Start: Fall, Spring, and Summer

Students majoring in Corrections need to complete the 40 credit hours of general education requirements for the AA degree requirements described in the Liberal Arts major and complete a minimum of 22 credit hours of the Corrections courses.

Degree Requirements		
AGP401	Introduction to GIS Software	1
CRJ100	Intro to Criminal Justice	3
CRJ120	Introduction to Corrections	3
CRJ200	Criminology	3
CRJ201	Juvenile Delinquency	3
CRJ216	Employment Strategies for Criminal Justice	2
CRJ233	Probation, Parole, Community-Based Corrections	3
CRJ258	Ethical Issues in Criminal Justice	2
CRJ299	Current Issues in Criminal Justice	2
	Social Sciences*	9
	Communications*	9
	Social Diversity*	3
	Humanities*	9
	Natural Science & Mathematics*	10

Total Credits 62

* View the Associate of Arts degree for course options.

Program Contacts

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

Program Advisors
Stephan Kaftan
Health Education and Services Center 217C
319-296-2329 ext.1589
Email me

General Business

The Associate of General Studies – General Business degree is designed to provide students the opportunity to transfer to a four-year institution or move directly into the workforce. This degree may also be beneficial to the student who is working and desires skill enhancement. This degree allows students the flexibility of taking both transfer and non-transfer technical courses along with a general education core.

Students will concentrate in a particular interest area while fulfilling the business requirements. General Studies graduates gain an understanding of the various facets of business and their importance in today's business world and are able to demonstrate skills in a particular concentration, including accounting, marketing, office support, ans small business management.

Liberal Arts Core

Category I: Humanities	6 hours minimum
Category II: Natural Sciences & Math	7 hours minimum
Category III: Social Sciences	6 hours minimum
Category IV: Communications	9 hours minimum
Category V: Social Diversity	3 hours minimum

Complete a minimum of 62 to 64 credit hours of courses for this degree. Of those 62 to 64 hours, 31 are in general education and 31 to 33 are in a program emphasis. Students will concentrate in a particular interest area while fulfilling the business requirements.

Graduates will gain an understanding of the various facets of business and their importance in today's business world and will be able to demonstrate skills in a particular area of concentration.

Program Contacts

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

Program Advisor A-D
Todd Stabenow
Black Hawk Hall 253
319-296-2329 ext.1375
Email me

Program Advisor E-J
Joseph Toe
Black Hawk Hall 182
319-296-2329 ext.1376
Email me

Program Advisor K-Q
Deb Weber
Black Hawk Hall 254
319-296-2329 ext.1743
Email me

Program Advisor R-Z
Roger Davis
Black Hawk Hall 181
319-296-2329 ext.1754
Email me

Program Admissions Requirements

1. Be a high school graduate or equivalent.

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, you must score at least 19 on the ACT assessment in Reading, Math, and English or take the COMPASS assessment.

   Depending on your COMPASS scores, you may need to complete college success courses with a "C" grade or higher at Hawkeye Community College or comparable courses at another accredited college.

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Program Contacts

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

Program Advisor A-D
Todd Stabenow
Black Hawk Hall 253
319-296-2329 ext.1375
Email me

Program Advisor E-J
Joseph Toe
Black Hawk Hall 182
319-296-2329 ext.1376
Email me

Program Advisor K-Q
Deb Weber
Black Hawk Hall 254
319-296-2329 ext.1743
Email me

Program Advisor R-Z
Roger Davis
Black Hawk Hall 181
319-296-2329 ext.1754
Email me

Sequence of Study

General Business	**Concentrations**

Degree Awarded: AGS
Program Start: Fall, Spring, and Summer

View course descriptions

Program Contacts

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

Program Advisor A-D
Todd Stabenow
Black Hawk Hall 253
319-296-2329 ext.1375
Email me

Program Advisor E-J
Joseph Toe
Black Hawk Hall 182
319-296-2329 ext.1376
Email me

Program Advisor K-Q
Deb Weber
Black Hawk Hall 254
319-296-2329 ext.1743
Email me

Program Advisor R-Z
Roger Davis
Black Hawk Hall 181
319-296-2329 ext.1754
Email me

Semester 1

BUS102	Introduction to Business	3
CSC110	Introduction to Computers OR	3
BCA201	Introduction to Info Systems	3
ENG105	Composition I	3
HIS117	Western Civilization I: Ancient and Medieval OR	3
HIS118	Western Civilization II: Early Modern OR	3
HIS119	Western Civilization III: The Modern Period OR	3
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3

Total Credits 15

Semester 2

ACC131	Principles of Accounting I	4
ENG106	Composition II	3
	Business Concentration Course	3
	Business Concentration Course	3
	Humanities	3

Total Credits 16

Semester 3

BUS183	Business Law	3

HIS151	U.S. History to 1877 OR	3
HIS152	U.S. History Since 1877 OR	3
POL111	American National Government	3
MAT110	Math for Liberal Arts OR	3
MAT156	Statistics	3
	Social Diversity	3
	Business Concentration Course	3

Total Credits 15

Semester 4

ECN120	Principles of Macroeconomics OR	3
ECN130	Principles of Microeconomics	3
SPC101	Fundamentals of Oral Communication	3
	Science Course with Lab	4
	Business Concentration Course	3
	Business Concentration Course	3

Total Credits 16

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Sequence of Study

General Business | **Concentrations**

Degree Awarded: AGS
Program Start: Fall, Spring, and Summer

View course descriptions

Accounting Concentration

ACC132	Principles of Accounting II	4
ACC265	Income Tax Accounting	4
ACC311	Computer Accounting	3
ACC801	Payroll Accounting	1
ACC803	Accounting Simulations	1
ADM131	Office Calculators	1

Total Credits 14

Marketing Concentration

BCA132	Electronic Communications	3
MKT110	Principles of Marketing	3
MKT140	Principles of Selling	3
MKT152	Advertising and Visual Merchandising	3
MKT160	Principles of Retailing	3

Total Credits 15

Office Technology Concentration

ADM105	Introduction to Keyboarding	1
ADM148	Transcription	2

Program Contacts

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

Program Advisor A-D
Todd Stabenow
Black Hawk Hall 253
319-296-2329 ext.1375
Email me

Program Advisor E-J
Joseph Toe
Black Hawk Hall 182
319-296-2329 ext.1376
Email me

Program Advisor K-Q
Deb Weber
Black Hawk Hall 254
319-296-2329 ext.1743
Email me

Program Advisor R-Z
Roger Davis
Black Hawk Hall 181
319-296-2329 ext.1754
Email me

ADM159	Proofreading and Editing	3
ADM162	Office Procedures	3
BCA134	Word Processing	3
BCA213	Intermediate Computer Business Applications OR	3
BCA132	Electronic Communications	3

Total Credits 15

Small Business Manangement Concentration		
MGT101	Principles of Management	3
MGT110	Small Business Management	3
	Small Business Management Electives	9

Total Credits 15

Small Business Manangement Electives		
ACC311	Computer Accounting	3
ACC801	Payroll Accounting	1
MGT170	Human Resource Management	3
MKT140	Principles of Selling	3
MKT152	Advertising and Visual Merchandising	3
MKT160	Principles of Retailing	3

Liberal Arts - AA Degree

The Associate of Arts (AA) degree in Liberal Arts is primarily a general education degree designed for students who want to transfer to a four-year college.

Hawkeye's courses have been articulated by Iowa's Regent universities. Students earning an Associate of Arts degree will meet most general education requirements when they transfer and will be admitted with junior status.

This degree requires a total of 62 credit hours with a minimum of 40 credit hours of liberal arts core credits and the remaining 22 hours as college electives. Up to 16 credit hours of technical courses can be counted toward the 22 hours of electives.

Liberal Arts Core

Category I: Humanities	9 hours minimum
Category II: Natural Sciences & Math	10 hours minimum
Category III: Social Sciences	9 hours minimum
Category IV: Communications	9 hours minimum
Category V: Social Diversity	3 hours minimum

List of courses to fulfill each Liberal Arts Core requirement for an Associate of Arts degree at Hawkeye.

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 environment.

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.

Program Admissions Requirements

1. Be a high school graduate or equivalent.

2. Apply at Hawkeye.

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

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   For general admission to Hawkeye, you must score at least 19 on the ACT assessment in Reading, Math, and English or take the COMPASS assessment.

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Program Contacts

Advisors

Leah Clark
Student Services
Hawkeye Center
Upper Level
319-296-2329 ext.1442
Email me

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

Dean of Humanities and Communication Arts
Laurel Klinkenberg
Black Hawk Hall 224
319-296-4041
Email me

Dean of Math and Sciences
Cynthia Bottrell
Grundy Hall 207
319-296-4470
Email me

Degree Requirements

Students should work with their program advisor to plan their class schedules.

I.	Humanities	9 credits (minimum)

A.	**Western Civilization**	**3 credits (minimum)**

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

HIS117 Western Civilization I: Ancient and Medieval	3
HIS118 Western Civilization II: Early Modern	3
HIS119 Western Civilization III: The Modern Period	3

B.	**Humanities**	**6 credits (minimum)**

Requires one course from two different areas - 1,2, or 3.

1. Literature and Fine Arts

Introduces dynamic and holistic ways of viewing the human condition.

ART101 Art Appreciation	3
ART106 Art Appreciation-Studio	3
ART203 Art History I	3
ART204 Art History II	3
DRA107 Theatrical Arts and Society	3
LIT101 Intro to Literature (P)	3
MUS100 Music Appreciation	3

2. Philosophy and Religion

Provides a basis of concepts and values that have influenced numerous cultures around the world.

PHI101 Intro to Philosophy	3
PHI105 Intro to Ethics	3
REL101 Survey of World Religions	3
REL130 Intro to Religions of the East	3

I.	Humanities	9 credits (minimum)

3. **Non-Western Cultures**

Raises awareness of other cultures, including their diverse economic, political, family, and religious structures.

CLS130 African Cultures *	3
CLS141 Mid Eastern Hist and Culture *	3
CLS150 Latin Am History and Culture *	3
CLS160 East Asian Cultures *	3
CLS164 Japanese History and Culture *	3
CLS172 Russian Civilization *	3

II.	Natural Science and Mathematics	10 credits (minimum)

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

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 you to be introduced to the process of science.

BIO105 Introductory Biology	4
BIO112 General Biology I	4
BIO113 General Biology II	4
BIO154 Human Biology	3
BIO163 Essentials of Anatomy and Physiology	4
BIO173 Human Anatomy and Physiology II w/Lab (P)	4
BIO185 Microbiology w/Lab	3
CNS121 Environmental Conservation ***	3

B. **Physical Sciences**

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

CHM122 Intro to General Chemistry	4
CHM165 General Chemistry I (P)	4
ENV115 Environmental Science ***	3

II.	Natural Science and Mathematics	10 credits (minimum)
	ENV116 Environmental Science Lab *** (C)	1
	GEO131 Physical Geography	3
	GEO132 Physical Geography Lab (C)	1
	PHS120 Exploring Physical Science	4
	PHS142 Principles of Astronomy	3
	PHY162 College Physics I (P)	4
	PHY212 Classical Physics I (P)	5

C.	Mathematics (Assessment Required)	3 credits (minimum)

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

	MAT110 Math for Liberal Arts (P)	3
	MAT122 College Algebra (P)	5
	MAT128 Precalculus (P)	4
	MAT134 Trig and Analytical Geometry (P)	3
	MAT156 Statistics (P)	3
	MAT210 Calculus I (P)	4

III.	Social Sciences	9 credits (minimum)

Requires one course from each area - A and B, and one course from any area - A, B, or C.

A. People and Their Relationships
Introduces the study of human mental processes, social behaviors, and interactions.

	PSY111 Introduction to Psychology	3
	SOC110 Introduction to Sociology	3

B. American Society
Explores the development of the United States and its unique characteristics such as cultural traditions, dialect, music, arts, cuisine, and politics.

	HIS151 U.S. History to 1877	3
	HIS152 U.S. History Since 1877	3
	POL111 American National Government	3

III.	Social Sciences	9 credits (minimum)

C. Other Social Sciences
Raises awareness of human interaction and its effect on relationships among individuals.

GEO115 Human Geography	3
GEO121 World Regional Geography	3
POL121 International Relations	3
POL125 Comparative Government and Politics	3
PSY121 Developmental Psychology	3
SOC115 Social Problems	3
SOC120 Marriage and Family	3
SOC135 Death and Dying	3
SOC208 Intro to Cultural Anthropology (also ANT105)	3

IV.	Communications	9 credits (minimum)

A. Written Communications (Assessment Required)   **6 credits (required)**
Enhances student ability to study and scrutinize issues while also
broadening their reading and writing skills.

ENG105 Composition I (P)	3
ENG106 Composition II (P)	3

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

SPC101 Fundamentals of Oral Communication	3

V.	Social Diversity	3 credits (minimum)

Builds an awareness of diversity and how it impacts society. Learning to tolerate and look for the best
in others, will help you live and work in a changing society.

COM148 Diversity and the Media	3
LIT133 Minority Voices in U.S. Literature (P)	3
PSY262 Psychology of Gender (P)	3
SOC200 Minority Group Relations	3
SOC205 Diversity in America	3

V.	Social Diversity	3 credits (minimum)
	WST101 Women's Studies	3

VI.	Elective Courses Suggested for Various AA Degree Options	22 credits

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

ACC131 Principles of Accounting I	4
ACC132 Principles of Accounting II (P)	4
ART120 2-D Design	3
ART123 3-D Design	3
ART133 Drawing	3
ART134 Drawing II	3
ART143 Painting	3
ART144 Painting II (P)	3
ART173 Ceramics	3
ART184 Photography	3
BCA201 Intro to Information Systems	3
BIO151 Nutrition	3
BIO168 Human Anatomy and Physiology I w/Lab	4
BUS102 Introduction to Business	3
BUS180 Business Ethics	3
BUS183 Business Law	3
BUS210 Business Statistics (P)	3
BUS230 Quantitative Methods for Business Decision Making (P)	3
CHM132 Intro to Organic and Biochemistry (P)	4
CHM175 General Chemistry II (P)	4
CNS101 Introduction to Environmental Technology	4
CNS201 Conservation Biology (P)	4
COM140 Introduction to Mass Media	3

VI.	Elective Courses Suggested for Various AA Degree Options	22 credits
	COM155 Newspaper Production **	3
	COM763 Intro to Professional Writing (P)	3
	CRJ100 Intro to Criminal Justice	3
	CRJ120 Intro to Corrections	3
	CRJ200 Criminology (also SOC240)	3
	CRJ201 Juvenile Delinquency (also SOC230)	3
	CRJ233 Prob, Parole, and Comm Based Corrections (P)	3
	CRJ258 Ethical Issues in Criminal Justice (P)	2
	CRJ299 Current Issues in Criminal Justice	2
	CRJ955 Field Observation (P)	1
	CSC110 Intro to Computers (P)	3
	DRA110 Intro to Film	3
	ECN110 Introduction to Economics (No credit if ECN120 or ECN130 earned.)	3
	ECN120 Principles of Macroeconomics	3
	ECN130 Principles of Microeconomics	3
	EDU216 Introduction to Teaching	3
	EDU223 Multicultural Education (P)	3
	EDU235 Children's Literature	3
	EDU240 Educational Psychology (P) (C)	3
	EDU255 Technology in the Classroom (P)	3
	EDU800 Exploring Math and Science Teaching	1
	EDU901 Academic Service Learning Exp **	1
	EDU920 Field Experience (C)	1
	ENG221 Creative Writing	3
	FIN101 Principles of Banking	3
	FIN110 Money and Banking	3
	FIN130 Principles of Finance (P)	3

VI.	Elective Courses Suggested for Various AA Degree Options	22 credits
	FIN175 Commercial and Mortgage Lending	3
	FIN190 Trust Op and Fund Management	3
	FLF145 French I	5
	FLF245 French II (P)	5
	FLS128 Conversational Spanish	3
	FLS151 Elementary Spanish I	5
	FLS152 Elementary Spanish II (P)	5
	HIS155 American Civilization	3
	HIS201 Iowa History (P)	3
	HIS214 Russian History and Culture * (P)	3
	HIS251 U.S. History 1945 to Present (P)	3
	HIS257 African American History	3
	HIS277 History of Women in the U.S. (P)	3
	HUM130 Holocaust Perspectives: Confronting the Future	3
	HUM140 Shakespeare: Dramatist, Psychologist, Historian	3
	ITP128 Intro to Deaf Studies	3
	LIT142 Major British Writers	3
	LIT189 Women and Literature	3
	LIT949 Special Topics in Literature	1-3
	MAT102 Intermediate Algebra (P)	4
	MAT117 Math for Elementary Teachers (P)	3
	MAT216 Calculus II (P)	4
	MAT219 Calculus III (P)	4
	MGT101 Principles of Management	3
	MIL103 Military Survival Skills	2
	MIL110 Leadership and Personal Development	1
	MIL115 Foundations in Leadership	1

VI.	Elective Courses Suggested for Various AA Degree Options	22 credits
	MIL120 Innovative Leadership	2
	MIL122 Leadership in Changing Environments	2
	MKT110 Principles of Marketing	3
	MUA106 Class Voice **	1
	MUA119 Class Piano	1
	MUA120 Applied Piano	1-2
	MUS102 Music Fundamentals	3
	PEA102 Aerobic Fitness I **	1
	PEA114 Bicycling I **	1
	PEA117 Bowling I **	1
	PEA119 Step and Pump I **	1
	PEA123 Circuit Training **	1
	PEA125 Indoor Cycling **	1
	PEA128 Distance Running I **	1
	PEA134 Golf I **	1
	PEA150 Powerwalking **	1
	PEA154 Racquetball I **	1
	PEA157 Rollerblading **	1
	PEA171 Self Defense	1
	PEA174 Tennis I **	1
	PEA176 Volleyball I **	1
	PEA187 Weight Training I **	1
	PEA191 Pilates **	1
	PEA193 Resist-A-Ball **	1
	PEA194 Vinyasa Yoga **	1
	PEA287 Weight Training II **	
	PEC110 Coaching Ethics, Techniques, and Theory	1

VI.	Elective Courses Suggested for Various AA Degree Options	22 credits
	PEC115 Athletic Development and Human Growth	1
	PEC123 Anatomy for Coaching	1
	PEC127 Care and Prevention of Athletic Injuries	2
	PEH110 Personal Wellness	2
	PEH141 First Aid	2
	PEH266 Leadership Techniques for Fitness Programs	3
	PHI121 Classical and Medieval Philosophy	3
	PHY172 College Physics II (P)	4
	PHY222 Classical Physics II (P)	5
	PSY241 Abnormal Psychology (P)	3
	PSY251 Social Psychology (also SOC251) (P)	3
	PSY261 Human Sexuality (also SOC261)	3
	PSY924 Honors Project (P) **	1
	PSY926 Honors Seminar (P)	3
	SDV109 College 101	3
	SDV116 Strategies for Online Academic Success	1
	SDV127 Study Strategies	1
	SDV131 Career Exploration	2
	SOC160 Intro to Social Work	3
	SOC195 Urban Studies (P)	3
	SOC220 Sociology of Aging	3
	SOC820 Genography	3
	SOC850 Cultural Immersion Field Experience **	1
	SPC120 Intercultural Communications	3
	SPC122 Interpersonal Communication (P)	3
	SPC132 Group Communication (P)	3
	SPC140 Oral Interpretation	3

*   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.

P   Must complete a prerequisite.

C   Must take a corequisite.

Focus Areas

Students who plan to graduate from Hawkeye with an Associate of Arts degree in Liberal Arts may choose to follow the guidelines of a focus area.

We recommend that you work closely with an [academic advisor](#) in Student Services to help you map out the courses you need to take at Hawkeye that will transfer to you school and major of your choice.

For some of these majors, students may be advised to transfer after one year at Hawkeye, depending on their transfer school of choice.

Business
- Accounting
- Advertisement
- Economics
- Finance
- Human Resource Management
- Management
- Management Information Systems
- Marketing
- Real Estate
- Sales

Communications / Speech
- Broadcasting
- Communications
- Communicative Disorders
- Foreign Languages
- Mass Communications
- Public Relations

Education
- Early Childhood Education
- Elementary
- High School
- Middle School
- Physical Education
- Special Education

English / Literature
- Editing
- English
- Journalism
- Literature
- Writing

Fine Arts
- Art History

Program Contacts

Advisors

Leah Clark
Student Services
Hawkeye Center
Upper Level
319-296-2329 ext.1442
Email me

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

Dean of Humanities and Communication Arts
Laurel Klinkenberg
Black Hawk Hall 224
319-296-4041
Email me

Dean of Math and Sciences
Cynthia Bottrell
Grundy Hall 207
319-296-4470
Email me

- Art Studio Studies
- Drawing
- Painting

Health and Pre-Medical Science
- Athletic Training
- BSN Nursing
- Dietetics
- Exercise Science
- Health Education & Promotion
- Leisure Services
- Occupational and Physical Therapy
- Pre-Chiropractor Medical Arts
- Pre-Dentistry
- Pre-Medical Arts
- Sports Management
- Therapeutic Recreation

Human Services / Social Work
- Family and Consumer Sciences
- Human Services
- Social Work

Humanities
- Cultural Studies, Western Civilization
- Philosophy
- Religion

Math / Computer Science / Engineering
- Computer Information Systems
- Computer Sciences
- Engineering
- Mathematics
- Statistics and Actuarial Sciences

Natural Sciences
- Biology
- Chemistry
- Earth Sciences
- Environmental Sciences
- Geology
- Physics

Social Sciences
- Anthropology
- Criminology
- Gerontology
- History
- Political Science
- Pre-Law
- Psychology
- Social Geography
- Sociology
- Women's Studies

Liberal Arts - AS Degree

The Associate of Science degree is designed to transfer to a four-year college or university and has a greater emphasis in mathematics and science than the Associate in Arts degree.

Students graduating with this degree can enter four-year colleges or universities with a junior standing. Students wishing to transfer must work closely with Hawkeye's advising staff as a statewide articulation agreement for Associate of Science degrees does not exist. Each degree and its program focus are articulated on a college-by-college basis.

Liberal Arts Core

Category I: Humanities	6 hours minimum
Category II: Natural Sciences & Math	12 hours minimum
Category III: Social Sciences	6 hours minimum
Category IV: Communications	9 hours minimum
Category V: Social Diversity	3 hours minimum
Liberal Arts Core Total:	**36 hours minimum**

List of courses to fulfill each Liberal Arts Core requirement for an Associate of Science degree at Hawkeye.

Philosophy Statement

The Liberal Arts curriculum challenges students with the rigors of classical liberal arts educational

Program Contacts

Advisors

Leah Clark
Student Services
Hawkeye Center
Upper Level
319-296-2329 ext.1442
Email me

Lisa Curry
Student Services
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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 environment.

Student 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 Science 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.

Program Admissions Requirements

1. Be a high school graduate or equivalent.

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, you must score at least 19 on the ACT assessment in Reading, Math, and English or take the COMPASS assessment.

   Depending on your COMPASS scores, you may need to complete college success courses with a "C" grade or higher at Hawkeye Community College or comparable courses at another accredited college.

   Assessment may be waived based on courses taken, credits earned, and grades received at a previous college. Please send your official college transcripts to the Admissions office for evaluation.

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Degree Requirements

Students should work with their program advisor to plan their class schedules.

I.	Humanities	6 credits (minimum)

A.	**Western Civilization**	**3 credits (minimum)**

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

HIS117 Western Civilization I: Ancient and Medieval	3
HIS118 Western Civilization II: Early Modern	3
HIS119 Western Civilization III: The Modern Period	3

B.	**Humanities**	**3 credits (minimum)**

Requires one course from any area - 1 2, and 3.

1. Literature and Fine Arts
Introduces dynamic and holistic ways of viewing the human condition.

ART101 Art Appreciation	3
ART106 Art Appreciation-Studio	3
ART203 Art History I	3
ART204 Art History II	3
DRA107 Theatrical Arts and Society	3
LIT101 Intro to Literature (P) *	3
MUS100 Music Appreciation	3

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

PHI101 Intro to Philosophy *	3
PHI105 Intro to Ethics *	3
REL101 Survey of World Religions	3
REL130 Intro to Religions of the East	3

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I.	Humanities	6 credits (minimum)

3. Non-Western Cultures

Raises awareness of other cultures, including their diverse economic, political, family, and religious structures.

CLS130 African Cultures	3
CLS141 Mid Eastern History and Culture	3
CLS150 Latin Am History and Culture	3
CLS160 East Asian Cultures	3
CLS164 Japanese History and Culture	3
CLS172 Russian Civilization	3

II.	Natural Science and Mathematics	12 credits (minimum)

Requires one course from each area - A, B, and C. Need 8 hours from A and B, including two 4-hour science laboratory courses.

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.

BIO105 Introductory Biology	4
BIO112 General Biology I	4
BIO113 General Biology II	4
BIO154 Human Biology	3
BIO163 Essentials of Anatomy and Physiology	4
BIO173 Human Anatomy and Physiology II w/Lab (P)	4
BIO185 Microbiology w/Lab	3
CNS121 Environmental Conservation ***	3

B. Physical Sciences

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

CHM122 Intro to General Chemistry	4
CHM132 Intro to Organic and Biochemistry (P)	4
CHM165 General Chemistry I (P)	4

II.	Natural Science and Mathematics	12 credits (minimum)
	CHM175 General Chemistry II (P)	4
	ENV115 Environmental Science ***	3
	ENV116 Environmental Science Lab *** (C)	1
	GEO131 Physical Geography	3
	GEO132 Physical Geography Lab (C)	1
	PHS120 Exploring Physical Science	4
	PHS142 Principles of Astronomy	3
	PHY162 College Physics I (P)	4
	PHY172 College Physics II (P)	4
	PHY212 Classical Physics I (P)	5
	PHY222 Classical Physics II (P)	5

C.	Mathematics (Assessment Required)	3 credits (minimum)

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

	MAT110 Math for Liberal Arts (P)	3
	MAT122 College Algebra (P)	5
	MAT128 Precalculus (P)	4
	MAT134 Trig and Analytical Geometry (P)	3
	MAT156 Statistics (P)	3
	MAT210 Calculus I (P)	4
	MAT216 Calculus II (P)	4

III.	Social Sciences	6 credits(minimum)

Requires one course from area A and one course from any area - A or B.

A.	People and Their Relationships

Introduces the study of human mental processes, social behaviors, and interactions.

	PSY111 Introduction to Psychology	3
	SOC110 Introduction to Sociology	3

III.	Social Sciences	6 credits(minimum)

B. American Society
Explores the development of the United States and its unique characteristics such as cultural traditions, dialect, music, arts, cuisine, and politics.

HIS151 U.S. History to 1877	3
HIS152 U.S. History Since 1877	3
POL111 American National Government	3

IV.	Communications	9 credits (minimum)

A. Written Communications (Assessment Required) — **6 credits (required)**
Enhances student ability to study and scrutinize issues while also broadening their reading and writing skills.

ENG105 Composition I (P)	3
ENG106 Composition II (P)	3

B. Oral Communications — **3 credits (required)**
Explores ways to improve critical thinking, idea articulation, public speaking, and attentive listening in order to increase understanding and productivity.

SPC101 Fundamentals of Oral Communication	3

V.	Social Diversity	3 credits (minimum)

Builds an awareness of diversity and how it impacts society. Learning to tolerate and look for the best in others, will help you live and work in a changing society.

COM148 Diversity and the Media	3
LIT133 Minority Voices in U.S. Literature +	3
PSY262 Psychology of Gender (P) +	3
SOC200 Minority Group Relations	3
SOC205 Diversity in America +	3
WST101 Women's Studies +	3

VI.	Elective Courses Suggested for Various AS Degree Options	26 credits

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

VI.	Elective Courses Suggested for Various AS Degree Options	26 credits
	ACC131 Principles of Accounting I	4
	ACC132 Principles of Accounting II (P)	4
	AGA114 Principles of Agronomy °	3
	AGA154 Funds of Soil Science °	3
	AGA214 Cash Grains °	3
	AGA284 Pesticide Application Certification °	3
	AGA376 Integrated Pest Management °	3
	AGB101 Agricultural Economics °	3
	AGB111 Agriculture Enterprise Lab ** °	1
	AGB235 Intro to Agriculture Markets °	3
	AGB303 Ag Leadership °	3
	AGB331 Entrepreneurship in Agriculture °	3
	AGB336 Agricultural Selling °	3
	AGB466 Ag Finance °	3
	AGC103 Ag Computer °	3
	AGH111 Introduction to Turfgrass Management °	2
	AGH119 Herbaceous Plant Materials °	2
	AGH122 Woody Plant Materials °	2
	AGH144 Landscape Construction and Design °	3
	AGH161 Irrigation Systems °	3
	AGH211 Advanced Turfgrass Management °	3
	AGH221 Principles of Horticulture °	3
	AGH222 Plant Propagation I °	2
	AGH280 Botany for Horticulture °	3
	AGH322 Plant Propagation II °	2
	AGH710 Intro to Leisure Services	3
	AGH720 Leadership in Leisure Services	3

VI.	Elective Courses Suggested for Various AS Degree Options	26 credits
	AGH730 Programming for Leisure Services	3
	AGP333 Precision Farming Systems °	3
	AGP401 Intro to GIS Software ° (P)	1
	AGP450 Fundamentals of GIS	3
	AGS113 Survey of the Animal Industry °	3
	AGS211 Issues Facing Animal Science °	2
	AGS218 Domestic Animal Physiology (P)	4
	AGS272 Foods of Animal Origin ° (P)	5
	AGS305 Livestock Evaluation °	3
	AGS319 Animal Nutrition °	3
	AGT805 Employment Experience °	5
	AGV123 Companion Animal °	3
	ART120 2-D Design	3
	ART130 3-D Design	3
	ART133 Drawing	3
	ART134 Drawing II (P)	3
	ART143 Painting	3
	ART144 Painting II (P)	
	ART173 Ceramics	3
	ART184 Photography	3
	BCA201 Intro to Information Systems	2
	BIO151 Nutrition	3
	BIO168 Human Anatomy and Physiology I w/Lab	4
	BUS102 Introduction to Business	3
	BUS180 Business Ethics	3
	BUS183 Business Law	3
	BUS210 Business Statistics (P)	3

VI.	Elective Courses Suggested for Various AS Degree Options	26 credits
	BUS230 Quantitative Methods for Business Decision Making (P)	3
	CNS101 Intro to Environmental Technology	4
	CNS201 Conservation Biology (P)	4
	COM155 Newspaper Production **	3
	CSC110 Intro to Computers (P)	3
	ECN110 Introduction to Economics (No credit if ECN120 or ECN130 earned.)	3
	ECN120 Principles of Macroeconomics	3
	ECN130 Principles of Microeconomics	3
	EDU216 Introduction to Teaching	3
	EDU223 Multicultural Education (P)	3
	EDU235 Children's Literature	3
	EDU240 Educational Psychology (P) (C)	3
	EDU255 Technology in the Classroom (P)	3
	EDU901 Academic Service Learning Exp **	1
	EDU920 Field Experience (C)	1
	ENG221 Creative Writing	3
	FLS128 Conversational Spanish	3
	FLS151 Elementary Spanish I	5
	FLS152 Elementary Spanish II (P)	5
	GEO115 Human Geography	3
	GEO121 World Regional Geography	3
	HIS155 American Civilization	3
	HIS201 Iowa History (P)	3
	HIS214 Russian History and Culture (P)	3
	HIS257 African American History	3
	HIS277 History of Women in the U.S. (P)	3
	LIT189 Women and Literature	3

VI.	Elective Courses Suggested for Various AS Degree Options	26 credits
	MAT102 Intermediate Algebra (P)	4
	MAT117 Math for Elementary Teachers (P)	3
	MAT219 Calculus III (P)	4
	MGT101 Principles of Management	3
	MKT110 Principles of Marketing	3
	MUA106 Class Voice **	1
	MUA119 Class Piano	1
	MUA120 Applied Piano	1-2
	PEA102 Aerobic Fitness I **	1
	PEA114 Bicycling I **	1
	PEA117 Bowling I **	1
	PEA119 Step and Pump I **	1
	PEA123 Circuit Training **	1
	PEA125 Indoor Cycling **	1
	PEA128 Distance Running I **	1
	PEA134 Golf I **	1
	PEA150 Powerwalking **	1
	PEA154 Racquetball I **	1
	PEA157 Rollerblading **	1
	PEA171 Self Defense	1
	PEA174 Tennis I **	1
	PEA176 Volleyball I **	1
	PEA187 Weight Training I **	1
	PEA191 Pilates **	1
	PEA193 Resist-A-Ball **	1
	PEA194 Vinyasa Yoga **	1
	PEA287 Weight Training II (P)	1

VI.	Elective Courses Suggested for Various AS Degree Options	26 credits
	PEC110 Coaching Ethics, Techniques, and Theory	1
	PEC115 Athletic Development and Human Growth	1
	PEC123 Anatomy for Coaching	1
	PEC127 Care and Prevention of Athletic Injuries	2
	PEH110 Personal Wellness	2
	PEH141 First Aid	2
	PHI121 Classical and Medieval Philosophy	3
	POL121 International Relations	3
	POL125 Comparative Government and Politics	3
	PSY121 Developmental Psychology	3
	PSY241 Abnormal Psychology (P)	3
	PSY251 Social Psychology (also SOC251) (P)	3
	PSY261 Human Sexuality (also SOC261)	3
	PSY924 Honors Project (P)	1
	PSY926 Honors Seminar (P)	3
	SDV109 College 101	3
	SDV127 Study Strategies	1
	SDV131 Career Exploration	2
	SDV151 Leadership Training and Skill Dev	2
	SOC115 Social Problems	3
	SOC120 Marriage and Family	3
	SOC135 Death and Dying	3
	SOC160 Intro to Social Work	3
	SOC195 Urban Studies (P)	3
	SOC208 Intro to Cultural Anthropology	3
	SOC220 Sociology of Aging	3
	SOC820 Genography	3

VI.	Elective Courses Suggested for Various AS Degree Options	26 credits
	SOC850 Cultural Immersion Field Experience **	1

*   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 towards your 8 hours of science requirements.

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

P   Must complete a prerequisite.

C   Must take a corequisite.

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

Online Liberal Arts - AA Degree

Earn your Associate of Arts (AA) degree in Liberal Arts completely online.

The Associate of Arts (AA) degree in Liberal Arts is primarily a general education degree designed for students who want to transfer to a four-year college.

Hawkeye's courses are articulated with Iowa's Regent universities. Students earning an Associate of Arts degree will meet most general education requirements when they transfer and will be admitted with junior status. Work closely with an academic advisor at Hawkeye and the transfer college or university you plan to attend to ensure all courses transfer seamlessly.

Students apply to the Liberal Arts - AA degree and can complete all their coursework online.

This degree requires a total of 62 credit hours with a minimum of 40 credit hours of liberal arts core credits and the remaining 22 hours as college electives. Up to 16 credit hours of technical courses can be counted toward the 22 hours of electives.

Liberal Arts Core

Category I: Humanities	9 hours minimum
Category II: Natural Sciences & Math	10 hours minimum
Category III: Social Sciences	9 hours minimum
Category IV: Communications	9 hours minimum
Category V: Social Diversity	3 hours minimum

Program Contacts

Advisors

Leah Clark
Student Services
Hawkeye Center
Upper Level
319-296-2329 ext.1442
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Philosophy Statement

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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.

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- **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.

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- **Information Management**: Students will apply technological methods to retrieve, process, and communicate information.

Admissions Requirements

1. Be a high school graduate or equivalent.

2. Apply at Hawkeye.

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   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, you must score at least 19 on the ACT assessment in Reading, Math, and English or take the COMPASS assessment.

   Depending on your COMPASS scores, you may need to complete college success courses with a "C" grade or higher at Hawkeye Community College or comparable courses at another accredited college.

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Email me

Dean of Humanities and Communication Arts
Laurel Klinkenberg
Black Hawk Hall 224
319-296-4041
Email me

Dean of Math and Sciences
Cynthia Bottrell
Grundy Hall 207
319-296-4470
Email me

Degree Requirements

Students should work with their program advisor to plan their class schedules.

I.	Humanities	9 credits (minimum)

A.	**Western Civilization**	**3 credits (minimum)**

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

HIS117 Western Civilization I: Ancient and Medieval	3
HIS118 Western Civilization II: Early Modern	3
HIS119 Western Civilization III: The Modern Period	3

B.	**Humanities**	**6 credits (minimum)**

Requires one course from two different areas - 1,2, or 3.

1. Literature and Fine Arts

Introduces dynamic and holistic ways of viewing the human condition.

ART101 Art Appreciation	3
ART203 Art History I	3
ART204 Art History II	3
LIT101 Intro to Literature (P)	3
MUS100 Music Appreciation	3

2. Philosophy and Religion

Provides a basis of concepts and values that have influenced numerous cultures around the world.

PHI101 Intro to Philosophy	3
PHI105 Intro to Ethics	3
REL101 Survey of World Religions	3

3. Non-Western Cultures

Raises awareness of other cultures, including their diverse economic, political, family, and religious structures.

CLS130 African Cultures *	3

I.	Humanities	9 credits (minimum)

CLS150 Latin Am History and Culture *	3

CLS160 East Asian Cultures *	3

II.	Natural Science and Mathematics	10 credits (minimum)

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

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 you to be introduced to the process of science.

BIO154 Human Biology	3

B. Physical Sciences

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

ENV115 Environmental Science	3

ENV116 Environmental Science Lab (C)	1

C. Mathematics (Assessment Required)	**3 credits (minimum)**

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

MAT110 Math for Liberal Arts (P)	3

MAT156 Statistics (P)	3

III.	Social Sciences	9 credits (minimum)

Requires one course from each area - A and B, and one course from any area - A, B, or C.

A. People and Their Relationships

Introduces the study of human mental processes, social behaviors, and interactions.

PSY111 Introduction to Psychology	3

SOC110 Introduction to Sociology	3

B. American Society

Explores the development of the United States and its unique characteristics such as cultural traditions, dialect, music, arts, cuisine, and politics.

HIS151 U.S. History to 1877	3

III.	Social Sciences	9 credits (minimum)

	HIS152 U.S. History Since 1877	3
	POL111 American National Government	3

C. Other Social Sciences
Raises awareness of human interaction and its effect on relationships among individuals.

	POL125 Comparative Government and Politics	3
	PSY121 Developmental Psychology	3
	SOC115 Social Problems	3
	SOC120 Marriage and Family	3
	SOC135 Death and Dying	3

IV.	Communications	9 credits (minimum)

A. Written Communications (Assessment Required)   **6 credits (required)**
Enhances student ability to study and scrutinize issues while also broadening their reading and writing skills.

	ENG105 Composition I (P)	3
	ENG106 Composition II (P)	3

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

	SPC101 Fundamentals of Oral Communication	3

V.	Social Diversity	3 credits (minimum)

Builds an awareness of diversity and how it impacts society. Learning to tolerate and look for the best in others, will help you live and work in a changing society.

	PSY262 Psychology of Gender (P)	3
	SOC200 Minority Group Relations	3
	SOC205 Diversity in America	3

VI.	Elective Courses Suggested for Various AA Degree Options	22 credits

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

	ACC131 Principles of Accounting I	4

VI.	Elective Courses Suggested for Various AA Degree Options	22 credits
	ACC132 Principles of Accounting II (P)	4
	BCA201 Intro to Information Systems	3
	BUS102 Introduction to Business	3
	COM763 Intro to Professional Writing (P)	3
	CSC110 Intro to Computers (P)	3
	ECN120 Principles of Macroeconomics	3
	MGT101 Principles of Management	3
	MKT110 Principles of Marketing	3
	PEH110 Personal Wellness	2
	SDV131 Career Exploration	2
	SOC160 Intro to Social Work	3

*   Meets the Non-Western Cultures requirement at UNI.

P   Must complete a prerequisite.

C   Must take a corequisite.

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

Agricultural Power Technology

The Agricultural Power Technology program prepares students for careers as service technicians 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.

Program Admission Requirements

1. Be a high school graduate or equivalent.

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.

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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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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: $24,500 - $38,000 per year*

*Source: Iowa Workforce Development

Employers

Caterpillar	Cedar Rapids, IA
	Des Moines, IA
Cedar Valley Corp	waterloo, IA
Deike Implement	Waverly, IA
Goos Implement	Gladbrook, IA
Titan Machinery	Waverly, IA
Waterloo Implement	Waterloo, IA

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Butler Hall 104
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319-296-2329 ext.1118
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Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me

Sequence of Study

Agricultural Power Technology

Degree Awarded: AAS
Program Start: Fall only

View course descriptions

Semester 1

Code	Course	Credits
AGM104	Electricity	4
AGM107	Gas Engine Rebuild	7
AGM113	Hydraulics I	3
COM781	Written Communication in the Workplace OR	3
ENG105	Composition I	3

Total Credits 17

Semester 2

Code	Course	Credits
DSL377	Diesel Engine Rebuild	7
DSL447	Diesel Fuel Systems	7
MAT772	Applied Math OR	3
	Math Elective	3

Total Credits 17

Semester 3

Code	Course	Credits
AGM224	Hydraulics II	4
AGM327	Equipment Maintenance	7
AGM333	Electronics	3
PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3

Program Contacts

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Butler Hall 104
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Ray Beets
Butler Hall 104-A
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Total Credits 17

Semester 4		
AGM408	Power Transfer Systems	7
AGM417	Ag Equipment Repair	7
SPC101	Fundamentals of Oral Communication	3

Total Credits 17

Math Electives		
MAT110	Math for Liberal Arts	3
MAT122	College Algebra	5
MAT128	Precalculus	4
MAT134	Trigonometry and Analytic Geometry	3
MAT156	Statistics	3
MAT210	Calculus I	4
MAT216	Calculus II	4
MAT219	Calculus III	4

Program Contacts

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

Program Advisors
Bob Frost
Butler Hall 111
319-296-2329 ext.1328
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

Automotive Technology

The Automotive Technology program prepares students for a career in the vast field of automotive repair. 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.

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Program Admission Requirements

1. Be a high school graduate or equivalent.

2. Apply at Hawkeye.

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

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

Program Advisors
Bob Frost
Butler Hall 111
319-296-2329 ext.1328
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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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 - $21,000 - $36,500 per year*

*Source: Iowa Workforce Development

Employers

Armour Swift-Eckrich	Mason City, IA
Dan Deery Motor Co.	Cedar Falls, IA
John Deere Tractor Works	Waterloo, IA
Krueger Chrysler Village	Waverly, IA
Waterloo Auto Parts	Waterloo, IA

Program Contacts

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

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Bob Frost
Butler Hall 111
319-296-2329 ext.1328
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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Sequence of Study

Automotive Technology

Degree Awarded: AAS
Program Start: Fall and Spring

View course descriptions

Semester 1

AUT107	Introduction to Automotive Technology	6
AUT165	Automotive Engine Repair	5
AUT645	Automotive Charging, Starting and Electrical Systems	5
MAT772	Applied Math OR	3
	Math Elective	3

Total Credits 19

Semester 2

AUT405	Automotive Suspension and Steering	5
AUT505	Automotive Brake Systems	5
AUT850	Automotive Engine Drivability Diagnosis	6
PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3

Total Credits 19

Semester 3

AUT941	Practicum	5

Total Credits 5

Semester 4

Program Contacts

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

Program Advisors
Bob Frost
Butler Hall 111
319-296-2329 ext.1328
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

AUT205	Automotive Automatic Transmissions/Transaxles	5
AUT705	Automotive Heating and Air Conditioning	5
AUT857	Advanced Automotive Engine Drivability Diagnosis	6
COM781 ENG105	Written Communication in the Workplace OR Composition I	3 3

Total Credits 19

Semester 5		
AUT305	Automotive Manual Drive Train and Axles	5
SPC101	Fundamentals of Oral Communication	3

Total Credits 8

Math Electives		
MAT110	Math for Liberal Arts	3
MAT122	College Algebra	5
MAT128	Precalculus	4
MAT134	Trigonometry and Analytic Geometry	3
MAT156	Statistics	3
MAT210	Calculus I	4
MAT216	Calculus II	4
MAT219	Calculus III	4

Automotive Technology - Automotive Electronic Technology Option

The Automotive Technology - Automotive Electronic Technology Option program is designed to combine the field of electronics with mechanics for an in-depth study in both areas providing students a broad knowledge base that may be utilized in many different job areas. Students gain hands-on experience in testing and diagnosing engine drivability, automatic transmissions, gas engines, suspension, alignment, brakes, computer applications, basic electricity, and analog and digital microelectronics.

Automotive service technicians must continually adapt to changing technology as vehicle components and systems become increasingly sophisticated.

Accreditation

The Automotive Electronic Technology program is A.S.E. Master Certified in all eight areas of curriculum by 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.

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Program Contacts

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

Program Advisors
Bob Frost
Butler Hall 111
319-296-2329 ext.1328
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

Program Admission Requirements

1. Be a high school graduate or equivalent.

2. Apply at Hawkeye.

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

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

Program Advisors
Bob Frost
Butler Hall 111
319-296-2329 ext.1328
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

Careers

Graduates find employment in automotive dealerships, independent automotive shops, car and tractor manufacturers, and national automotive service centers

Placement
Starting Wages - $21,000 - $35,000 per year*

*Source: Iowa Workforce Development

Employers

Clear View Services	Cedar Falls, IA
Dan Deery Motor Co.	Cedar Falls, IA
Jim Lind Service	Waterloo, IA
John Deere P.E.C.	Waterloo, IA
John Deery Motors	Cedar Falls, IA
Rydell Chevrolet	Waterloo, IA

Program Contacts

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

Program Advisors
Bob Frost
Butler Hall 111
319-296-2329 ext.1328
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

Sequence of Study

Automotive Electronic Technology

Degree Awarded: AAS
Program Start: Fall and Spring

View course descriptions

Semester 1		
AUT107	Introduction to Automotive Technology	6
AUT165	Automotive Engine Repair	5
AUT645	Automotive Charging, Starting and Electrical Systems	5
MAT772	Applied Math OR	3
	Math Elective	3

Total Credits 19

Semester 2		
AUT405	Automotive Suspension and Steering	5
AUT505	Automotive Brake Systems	5
AUT850	Automotive Engine Drivability Diagnosis	6
PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3

Total Credits 19

Semester 3		
AUT634	Automotive Electronics I	3
AUT635	Automotive Electronics II	3

Total Credits 6

Program Contacts

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

Program Advisors
Bob Frost
Butler Hall 111
319-296-2329 ext.1328
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

Semester 4		
AUT205	Automotive Automatic Transmissions/Transaxles	5
AUT705	Automotive Heating and Air Conditioning	5
AUT857	Advanced Automotive Engine Drivability Diagnosis	6
COM781 ENG105	Written Communication in the Workplace OR Composition I	3 3

Total Credits 19

Semester 5		
AUT305	Automotive Manual Drive Train and Axles	5
SPC101	Fundamentals of Oral Communication	3

Total Credits 8

Math Electives		
MAT110	Math for Liberal Arts	3
MAT122	College Algebra	5
MAT128	Precalculus	4
MAT134	Trigonometry and Analytic Geometry	3
MAT156	Statistics	3
MAT210	Calculus I	4
MAT216	Calculus II	4
MAT219	Calculus III	4

Collision Repair and Refinishing

The Collision Repair and Refinishing program provides students with the training and knowledge needed for entry into the various collision and refinishing 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 vehicle repair and refinishing. Students will learn paint techniques on Hawkeye's new 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.

College Catalog | Next Page >

Program Contacts

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

Program Advisors
Jim Ingles
Butler Hall 134
319-296-2329 ext. 1119
Email me

Al Read
Butler Hall 134
319-296-2329 ext. 1324
Email me

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me

You Tube

Collision Repair and Refinishing - Virtual Paint

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Program Admission Requirements

1. Be a high school graduate or equivalent.

2. Apply at Hawkeye.

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

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College Catalog | Next Page >

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

Program Advisors
Jim Ingles
Butler Hall 134
319-296-2329 ext. 1119
Email me

Al Read
Butler Hall 134
319-296-2329 ext. 1324
Email me

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me

You Tube

Collision Repair and Refinishing - Virtual Paint

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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 - $24,000 - $37,000 per year*

*Source: Iowa Workforce Development

Employers

Black Hawk Auto Refinishers	LaPorte City, IA
Deery Brothers Collision Center	Cedar Falls, IA
Dick Witham Crossroads Ford	Waterloo, IA
Droste's Auto Care	Waterloo, IA
Dunlap Motors	Independence, IA
Iowa Auto Rebuilders	Waterloo, IA
Palau & Sons	Manchester, IA
Roskamp Champion	Waterloo, IA
Rydell Chevrolet, Mitsubishi, Inc.	Waterloo, IA

Program Contacts

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

Program Advisors
Jim Ingles
Butler Hall 134
319-296-2329 ext.1119
Email me

Al Read
Butler Hall 134
319-296-2329 ext.1324
Email me

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me

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Terex Cranes, Inc.   Waverly, IA

Sequence of Study

Collision Repair and Refinishing   **Diploma Option**

Degree Awarded: AAS
Program Start: Fall only

View course descriptions

Semester 1

CRR306	Introduction to Collision Repair	6
CRR806	Introduction to Refinishing	6
MAT772	Applied Math OR	3
	Math Elective	3
SPC101	Fundamentals of Oral Communication	3

Total Credits 18

Semester 2

COM781	Written Communication in the Workplace OR	3
ENG105	Composition I	3
CRR331	Basic Collision Procedures	6
CRR836	Refinishing II	6
PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3

Total Credits 18

Semester 3

CRR876	Refinishing Production	6

Total Credits 6

Program Contacts

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

Program Advisors
Jim Ingles
Bulter Hall 134
319-296-2329 ext.1119
Email me

Al Read
Butler Hall 134
319-296-2329 ext.1324
Email me

Dean
Ray Beets
Butler Hall 104-A
319-296-4042
Email me

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Semester 4		
CRR510	Collision Production Technology	7
CRR877	Refinishing Applications	7

Total Credits 14

Semester 5		
CRR657	Advanced Collision Repair	7
CRR881	Refinishing Production Technology	7

Total Credits 14

Math Electives		
MAT110	Math for Liberal Arts	3
MAT122	College Algebra	5
MAT128	Precalculus	4
MAT134	Trigonometry and Analytic Geometry	3
MAT156	Statistics	3
MAT210	Calculus I	4
MAT216	Calculus II	4
MAT219	Calculus III	4

Sequence of Study

Collision Repair and Refinishing | **Diploma Option**

Degree Awarded: Diploma
Program Start: Fall only

View course descriptions

Semester 1		
CRR306	Introduction to Collision Repair	6
CRR806	Introduction to Refinishing	6
MAT772	Applied Math OR	3
	Math Elective	3
SPC101	Fundamentals of Oral Communication	3
	Total Credits 18	

Semester 2		
COM781	Written Communication in the Workplace OR	3
ENG105	Composition I	3
CRR331	Basic Collision Procedures	6
CRR836	Refinishing II	6
PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3
	Total Credits 18	

Semester 3		
CRR876	Refinishing Production	6
	Total Credits 6	

Program Contacts

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

Program Advisors
Jim Ingles
Bulter Hall 134
319-296-2329 ext.1119
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Al Read
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Ray Beets
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319-296-4042
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You Tube

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Math Electives		
MAT 110	Math for Liberal Arts	3
MAT 122	College Algebra	5
MAT 128	Precalculus	4
MAT 134	Trigonometry and Analytic Geometry	3
MAT 156	Statistics	3
MAT 210	Calculus I	4
MAT 216	Calculus II	4
MAT 219	Calculus III	4

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.

Programs 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
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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, you must score at least 19 on the ACT assessment in Reading, Math, and English or take the COMPASS assessment.

   Depending on your COMPASS scores, you may need to complete college success courses with a "C" grade or higher at Hawkeye Community College or comparable courses at another accredited college.

   Assessment may be waived based on courses taken, credits earned, and grades received at a previous college. Please send your official college transcripts to the Admissions office for evaluation.

Programs 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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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: $28,000 - $38,000 per year*

*Source: Iowa Workforce Development

Employers

Altorfer Machinery	Cedar Rapids, IA
Cedar Valley Corp	Waterloo, IA
Don's Truck Sales	Fairbank, IA
Harrison Truck Center	Waterloo, IA
Hawkeye International Truck	Cedar Rapids, IA Waterloo, IA
Peterbuilt	Des Moines, IA
Warren Transportation	Waterloo, IA

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Sequence of Study

Diesel Truck Technology

Degree Awarded: AAS
Program Start: Fall only

View course descriptions

Semester 1		
AGM104	Electricity	4
AGM107	Gas Engine Rebuild	7
AGM113	Hydraulics I	3
COM781	Written Communication in the Workplace OR	3
ENG105	Composition I	3

Total Credits 17

Semester 2		
DSL377	Diesel Engine Rebuild	7
DSL447	Diesel Fuel Systems	7
MAT772	Applied Math OR	3
	Math Elective	3

Total Credits 17

Semester 3		
AGM224	Hydraulics II	4
AGM327	Equipment Maintenance	7
AGM333	Electronics	3
PSY102	Human & Work Relations OR	3
PSY111	Introduction to Psychology OR	3
SOC110	Introduction to Sociology	3

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Total Credits 17

Semester 4		
AGM408	Power Transfer Systems	7
DSL807	Diesel Truck Equipment Repair	7
SPC101	Fundamentals of Oral Communication	3

Total Credits 17

Math Electives		
MAT110	Math for Liberal Arts	3
MAT122	College Algebra	5
MAT128	Precalculus	4
MAT134	Trigonometry and Analytic Geometry	3
MAT156	Statistics	3
MAT210	Calculus I	4
MAT216	Calculus II	4
MAT219	Calculus III	4

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Truck Driving Simulator

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Truck Driving and Transportation Training

The Truck Driving and Transportation Training program prepares students to operate as over-the-road and local truck drivers as well as engage in other motor carrier positions in the industry. 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.

Program Admission Requirements

1. Be a high school graduate or equivalent.

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, you must score at least 19 on the ACT assessment in Reading, Math, and English or take the COMPASS assessment.

   Depending on your COMPASS scores, you may need to complete college success courses with a "C" grade or higher at Hawkeye Community College or comparable courses at another accredited college.

   Assessment may be waived based on courses taken, credits earned, and grades received at a previous college. Please send your official college transcripts to the Admissions office for evaluation.

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Truck Driving Simulator

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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 salspersons.

Placement

Starting Wages: $24,000 - $40,000 per year*

Iowa Workforce Development forecasts more than 1,490 job openings each year for truck drivers (heavy and tractor trailer) through the year 2018.

*Source: Iowa Workforce Development

Employers

Cedar Valley Corp	Waterloo, IA
Denver Construction	Waterloo, IA
Gray Transportation Company	Waterloo, IA
Keim TS	Fort Dodge, IA
Martin Bros. Distributing	Cedar Falls, IA
Peterson Contractors, Inc.	Reinbeck, IA
Schneider National Carriers	Green Bay, WI
Trans AMTrucking	Olathe, KS
Werner Enterprises	Omaha, NE

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Truck Driving Simulator

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Sequence of Study

16-Week Program   **6-Week Program**

Degree Awarded: Certificate
Program Start: Fall, Spring, and Summer

View course descriptions

Before the start of classes you must provide the following:

- DOT physical examination
- valid driver's license with a good driving record and a stable work history
- negative results of a DOT drug test

Semester 1		
TDT100	Interpersonal Relations	2
TDT115	Transportation Industry and Driver Regulations	4
TDT118	Driving Range I	6
TDT121	Driving Range II	2
TDT122	Driving Range III	2
TDT938	Truck Transportation On-the-Job Training	3

Total Credits 19

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Truck Driving Simulator

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Home   Academics   Programs of Study   Power Technology   Truck Driving and Transportation Training

Sequence of Study

16-Week Program	6-Week Program

Degree Awarded: Certificate
Program Start: Fall, Spring, and Summer

View course descriptions

Before the start of classes you must provide the following:

- DOT physical examination
- valid driver's license with a good driving record and a stable work history
- negative results of a DOT drug test

Semester 1		
TDT123	Transportation Industry for Entry-Level Drivers	5
TDT124	Driving Range and Road Skills	5

Total Credits 10

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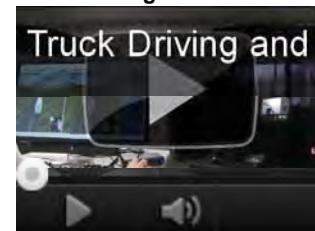
Course Descriptions

Search for a Course: [   ] [Go]

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: 0

Course Fee:

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: 0

Course Fee:

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: 0

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
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was AC101T

ACC132 Principles of Accounting II — 4 credits
This course continues to address topics in financial accounting that began in ACC-131 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: 0

Prerequisite(s): ACC131 Principles of Accounting I

Course Fee:

Prior to Fall 2006 the course number was AC102T

ACC152 Financial Accounting (KCC) — 4 credits
Introduces the basic concepts and procedures of accounting including the accounting cycle, merchandise accounting, internal control, long-term and contingent liabilities, corporate accounting and the collection of data for external reporting. Includes the preparation and analysis of financial statements. For more information contact Kirkwood Community College.

Lecture hours: 64
Lab/Clinic hours: 0

Prerequisite(s): MAT102 Intermediate Algebra

Course Fee:

ACC156 Managerial Accounting (KCC) — 4 credits
Surveys the basic concepts and procedures of accounting to include managerial, manufacturing and cost accounting for decision making. For more information contact Kirkwood Community College.

Lecture hours: 64
Lab/Clinic hours: 0

Prerequisite(s): ACC152 Financial Accounting and MAT140 Finite Math

Course Fee:

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: 0

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.

Course Fee:

Prior to Fall 2006 the course number was AC237U

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: 0

Prerequisite(s): ACC132 Principles of Accounting II or ACC116 Introduction to Accounting II

Course Fee:

Prior to Fall 2006 the course number was AC201U

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: 0

Prerequisite(s): ACC116 Introduction to Accounting II or ACC132 Principles of Accounting II

Course Fee:

Prior to Fall 2006 the course number was AC206U

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: 0

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: 0

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: 0

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: $38.00

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.

Lecture hours: 16
Lab/Clinic hours: 32

Prerequisite(s): BCA205 Database/Spreadsheets

Course Fee:

Prior to Fall 2006 the course number was AC234U

ACC370 Accounting Systems — 2 credits
This course provides the student with an overview of accounting systems with specific attention to automated systems. Alternative methods of maintaining financial records and preparing statements with necessary supporting schedules are discussed and practiced.

Lecture hours: 16
Lab/Clinic hours: 32

Prerequisite(s): ACC222 Cost Accounting and ACC360 Accounting Spreadsheets

Course Fee:

Prior to Fall 2006 the course number was AC231U

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

Course Fee:

Prior to Fall 2006 the course number was AC204U

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

Course Fee:

Prior to Fall 2006 the course number was AC202U

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

Course Fee:

Prior to Fall 2006 the course number was BS104U

ADM108 Keyboarding Skill Development — 1 credits
This course is a continuation of ADM-105 Introduction to Keyboarding. The course assists students to improve speed and accuracy. The minimum competency of 45 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

Prerequisite(s): 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:

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): BCA134 Word Processing and ADM105 Introduction to Keyboarding and

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: 0

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: 0

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: 0

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: 0

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, pronouncing, and defining of legal terms.

Lecture hours: 48
Lab/Clinic hours: 0

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: 0

Other Requirements: This course can only be taken in the term in which the student will be completing their program of study.

Course Fee: $22.00

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: 0

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: $30.00

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: $85.00

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: 0

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: 0

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: $120.00

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: $33.00

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:

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

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: $30.00

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: $30.00

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: $28.00

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: $27.00

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: $21.00

Prior to Fall 2006 the course number was AG154T

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: $25.00

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: $25.00

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: $22.00

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: $30.00

Prior to Fall 2006 the course number was AG232T

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: $28.00

Prior to Fall 2006 the course number was AB153T

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: $28.00

Prior to Fall 2006 the course number was AG243T

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: $30.00

Prior to Fall 2006 the course number was AG103T

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:

Prior to Fall 2006 the course number was HT107U

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: 0

Course Fee: $75.00

Prior to Fall 2006 the course number was HT108T

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: 0

Course Fee: $25.00

Prior to Fall 2006 the course number was HT142T

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: $36.00

Prior to Fall 2006 the course number was HT105T

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: 0

Course Fee: $30.00

Prior to Fall 2006 the course number was HT146U

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: $50.00

Prior to Fall 2006 the course number was HT101U

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: $75.00

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: $50.00

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: $75.00

AGH154 Residential Landscape Design — 3 credits

Lecture hours: 0
Lab/Clinic hours: 0

Course Fee:

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: $50.00

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: 0

Course Fee: $52.00

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: 0

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.

Lecture hours: 32
Lab/Clinic hours: 0

Course Fee: $38.00

Prior to Fall 2006 the course number was HT106T

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: $44.00

Prior to Fall 2006 the course number was HT149U

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: $30.00

Prior to Fall 2006 the course number was HT202U

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: $75.00

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: 0

Course Fee: $35.00

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: 0

Course Fee: $35.00

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: 0

Course Fee: $38.00

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: $35.00

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: $35.00

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: 0

Course Fee:

AGH710 Introduction to Leisure Services — 3 credits
This course is an orientation to the Leisure Services Profession, including history, philosophy, trends and opportunities. Examination of the components and interrelationships of leisure services delivery systems, focusing on programs and services, facilities, population served, and sources of funding.

Lecture hours: 48
Lab/Clinic hours: 0

Course Fee:

AGH720 Leadership in Leisure Services — 3 credits
This course discusses the theories, principles, and practices of leisure service leadership: techniques and methods of working with individuals and groups.

Lecture hours: 48
Lab/Clinic hours: 0

Course Fee:

AGH730 Programming for Leisure Services — 3 credits
This course is an introduction to methods and procedures for planning, budgeting, pricing, implementing, and evaluating leisure service programs.

Lecture hours: 48
Lab/Clinic hours: 0

Prerequisite(s): AGH710 Introduction to Leisure Services and AGH720 Leadership in Leisure Services

Course Fee:

AGH805 Horticulture Internship I — 5 credits

Lecture hours: 0
Lab/Clinic hours: 0

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: $50.00

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: $130.00

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: $54.00

Prior to Fall 2006 the course number was PT104U

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: $42.00

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: $160.00

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: $80.00

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: $67.00

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: $64.00

Prior to Fall 2006 the course number was AE231U

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: $46.00

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: $40.00

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: 0

Prerequisite(s): AGC103 Ag Computer or equivalent

Course Fee: $26.00

Prior to Fall 2006 the course number was AF201T

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: $38.00

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: $40.00

Prior to Fall 2006 the course number was AS110T

AGS170 Applied Beef Enterprise Analysis — 1 credits

This course will acquaint the students with several different types of Beef operations from seedstock and feedlot to commercial production systems.

Lecture hours: 0
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was AS161U

AGS171 Applied Swine Enterprise Analysis — 1 credits

This course will acquaint the students with several different types of swine operations.

Lecture hours: 0
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was AS162U

AGS172 Applied Sheep Enterprise Analysis — 1 credits
This course will acquaint the students with several different types of sheep operations from club lamb to feedlot, including marketing.

Lecture hours: 32
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was AS160U

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: $58.00

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: 0

Course Fee: $21.00

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: $35.00

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: $50.00

AGS225 Swine Science — 3 credits
This course provides an understanding of the principles involved with comprehensive swine management; selection 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: $165.00

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

Course Fee: $44.00

Prior to Fall 2006 the course number was AS220U

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

Course Fee: $48.00

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: $50.00

Prior to Fall 2006 the course number was AS203T

AGS280 Livestock Merchandising — 3 credits
This course presents aspects of how to manage the marketing aspects for a livestock business, how to develop advertising budgets for radio, TV, magazine and newspaper advertising, and logo development. Students will be involved in developing flyers, brochures, and video layouts and will be responsible for planning the agriculture department activities.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was AB156U

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: $84.00

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: $42.00

Prior to Fall 2006 the course number was AS202T

AGS331 Animal Reproduction — 3 credits
This course presents the latest scientific information about the principles of genetics and animal breeding together with practical application for the improvement of farm animals. Areas of study include: basic genetics, heritability, and breeding programs for breeding high quality animals with the use of available tools such as, selection, in-breeding cross-breeding, line-breeding, out-crossing, and artificial insemination.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was AS131U

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: 0

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: 0
Co-op Hours: 320

Course Fee: $25.00

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: 0

Course Fee:

AGV101 Veterinary Assisting — 3 credits
This course develops student's competencies needed to successfully perform the duties of a veterinary assistant. Topics covered 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: $50.00

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: 0

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 Health of companion animals. Additionally the course will offer insight into social behavior and relationships. Also

included will be training, housebreaking, and obedience. Guest speakers and field trips will be included.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee: $55.00

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 animal veterinary practices.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee: $30.00

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: 0

Course Fee:

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: 0

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:

Prior to Fall 2006 the course number was CT102U

ARC117 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): ARC174 Construction Drawings and CON135 Site Planning

Course Fee:

Prior to Fall 2006 the course number was CT132U

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: $50.00

Prior to Fall 2006 the course number was CT137U

ARC174 Construction Drawings — 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: 0

Course Fee:

Prior to Fall 2006 the course number was CT101U

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: 0

Prerequisite(s): ARC174 Construction Drawings and DRF113 Fundamentals of Technical Drafting

Course Fee: $61.00

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: $50.00

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: 0

Prerequisite(s): ARC174 Construction Drawings and ARC175 Building Systems

Course Fee: $29.00

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: 0

Prerequisite(s): ARC174 Construction Drawings and ARC175 Building Systems

Course Fee: $23.00

Prior to Fall 2006 the course number was CT205U

ARC179 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

Course Fee:

Prior to Fall 2006 the course number was CT231U

ARC217 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): ARC174 Construction Drawings ARC117 Estimating I and ARC175 Building Systems

Course Fee:

Prior to Fall 2006 the course number was CT209U

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: $103.00

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: $63.00

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: 0

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: $61.00

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: 0

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: $25.00

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: $25.00

Prior to Fall 2006 the course number was FA215T

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: $30.00

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: $30.00

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: $30.00

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: $30.00

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

Prerequisite(s): ART143 Painting or equivalent or permission of the instructor

Course Fee: $30.00

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: $25.00

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: $30.00

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: 0

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: 0

Course Fee:

Prior to Fall 2006 the course number was FA106T

ART928 Independent Study — 1 credits

Students can earn one to five credits for this Independent Study course.

Lecture hours: 0
Lab/Clinic hours: 0

Course Fee:

ASL131 American Sign Language I — 3 credits

This course will introduce the student to American Sign Language (ASL) and the primary users of this visual-gesture language, the American Deaf Community. This course will cover vocabulary and grammar by using ASL expressive and receptive skills. This course will be taught by the immersion method, using ASL exclusively after the first class lecture.

Lecture hours: 48
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was FL131T

ASL161 American Sign Language II — 3 credits

This course will introduce students to a higher level of American Sign Language which encourages students to use sign language to discuss ideas about people in a more abstract format and to use signing as applied to the environment removed from the classroom. The course emphasizes interaction as part of the learning experience.

Lecture hours: 48
Lab/Clinic hours: 0

Prerequisite(s): ASL131 American Sign Language I

Course Fee:

Prior to Fall 2006 the course number was FL133T

ASL245 American Sign Language III — 4 credits

This course is a continuation of American Sign Language II. Advanced grammatical constructions and vocabulary are introduced. The course includes conversational fluency as well as familiarity with American deaf culture. This class includes a required lab component. Course units will cover both expressive and receptive skills, plus vocabulary, grammar, and functional usage.

Lecture hours: 48
Lab/Clinic hours: 32

Prerequisite(s): ASL131 American Sign Language I and ASL161 American Sign Language II

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: $37.00

Prior to Fall 2006 the course number was AT103U

AUT165 Automotive Engine Repair — 5 credits
This course covers multi-cylinder gasoline internal combustion engines. Areas of study include construction, overhaul procedures, ignition, and fuel systems operation.

Lecture hours: 64
Lab/Clinic hours: 48

Course Fee: $51.00

Prior to Fall 2006 the course number was AT107U

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: $57.00

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: $44.00

Prior to Fall 2006 the course number was AT240U

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: $41.00

Prior to Fall 2006 the course number was AT131U

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: $35.00

Prior to Fall 2006 the course number was AT141U

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: $29.00

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: $35.00

Prior to Fall 2006 the course number was AT205U

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: $32.00

Prior to Fall 2006 the course number was AT105U

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: $55.00

Prior to Fall 2006 the course number was AT233U

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: $34.00

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

Course Fee: $55.00

Prior to Fall 2006 the course number was AT235U

AUT941 Practicum — 5 credits
Students are presented with diagnostic problems and repair projects. Competencies attained in prior classes are emphasized.

Lecture hours: 48
Lab/Clinic hours: 96

Prerequisite(s): AUT107 Introduction to Automotive Technology, AUT645 Automotive Charging, Starting and Electrical Systems, AUT165 Automotive Engine Repair, AUT405 Automotive Suspension and Steering, AUT505 Automotive Brake Systems, AUT850 Automotive Engine Drivability Diagnosis

Course Fee: $56.00

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: 0

Prerequisite(s): CSC110 Introduction to Computers or ADM105 Introduction to Keyboarding and BCA134 Word Processing

Course Fee:

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: 0

Course Fee:

Prior to Fall 2006 the course number was BS133U

BCA183 Basic Web Design Software — 2 credits
This course will show students how to use web authoring software to enhance and manage professional quality websites. Students will create a website containing multimedia elements, publish it, and maintain it.

Lecture hours: 16

Lab/Clinic hours: 32

Prerequisite(s): GRA150 Introduction to Web Design

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 Info 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: 0

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 generating reports database maintenance. Prior experience using a personal computer is recommended.

Lecture hours: 48
Lab/Clinic hours: 0

Other Requirements: Appropriate math placement score.

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, presentation, and integration of the applications. Topics include form letters, merging, desktop publishing, financial functions, data tables, creating and querying a worksheet database, templates, creating customized reports and forms in database, embedding visuals, and importing clips into presentation.

Lecture hours: 48
Lab/Clinic hours: 0

Prerequisite(s): BCA205 Database/Spreadsheets and BCA134 Word Processing

Course Fee:

Prior to Fall 2006 the course number was BS200U

BCA231 Sound and Streaming — 3 credits
This course will help students understand the concepts of streaming data over a public network (Internet). Students will learn about creating and editing both sound files and video. Students will learn to set up and broadcast sound, video, and data files on the Internet.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): CIS206 Web Scripting

Course Fee: $25.00

Prior to Fall 2006 the course number was IF234U

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

BIO041 Pre-Technical Biology — 3 credits
Pre-technical Biology is a one semester study of living organisms. Topics include classification, the chemical basis of life, cell structure and function, cellular respiration and energy production, genetics, and reproduction, as well as medically significant organisms. This course gives students a foundation in biology on which to build a specific health science curriculum.

Lecture hours: 48
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was SC041D

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: $28.00

Prior to Fall 2006 the course number was BI112T

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: $28.00

Prior to Fall 2006 the course number was BI110T

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: $28.00

Prior to Fall 2006 the course number was BI111T

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: 0

Course Fee:

Prior to Fall 2006 the course number was BI107T

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: 0

Course Fee:

Prior to Fall 2006 the course number was BI109T

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: 0

Course Fee:

Prior to Fall 2006 the course number was BI113T

BIO158 Basic Anatomy and Physiology — 2 credits
The major concept emphasized in this course is the relationship between structure and function in the human body. Knowledge of the structural and functional relationships provides the student with a basic understanding of the anatomy and physiology of the whole human organism. This course is required for students in the dental assisting program.

Lecture hours: 32
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was BI120U

BIO159 Fundamentals of Anatomy & 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: 0

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: 0

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: $37.00

Prior to Fall 2006 the course number was BI103T

BIO168 Human Anatomy and Physiology I w/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: $37.00

Prior to Fall 2006 the course number was BI104T

BIO173 Human Anatomy and Physiology II w/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: $37.00

Prior to Fall 2006 the course number was BI105T

BIO181 Homeostatic Physiology (KCC) — 3 credits
Designed for advanced Health Sciences students. This course emphasizes body systems important to maintaining homeostasis in the human. Nerve and muscle tissue, cardiac, respiratory, fluid-electrolyte, and endocrine physiology are addressed. For more information contact Kirkwood Community College.

Lecture hours: 48
Lab/Clinic hours: 0

Prerequisite(s): BIO161 Basic Anatomy and Physiology or BIO163 Essentials of Anatomy and Physiology

Course Fee:

BIO185 Microbiology w/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: $36.00

Prior to Fall 2006 the course number was BI106T

BIO247 Applications of Biotechnology — 3 credits
This lecture-lab course focuses on the laboratory procedures used in biotechnology and their application to agriculture, nursing, police science, and research. Students will learn the procedures and develop proficiency in such techniques as tissue culture, DNA manipulation, extraction, transformation, polymerase chain reaction (PCR), and DNA fingerprinting.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was BI201T

BIO928 Independent Study in Bio Sciences — 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: 0

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: 0

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 macrolevel 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: 0

Course Fee:

Prior to Fall 2006 the course number was MM138T

BUS183 Business Law — 3 credits
This course is an introduction to the principles of law as they relate to business. The 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: 0

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: 0

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: 0

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: 0

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: 0
Co-op Hours: 192

Other Requirements: 2.00 cumulative GPA

Course Fee:

Prior to Fall 2006 the course number was BS204U

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

Course Fee: $32.00

Prior to Fall 2006 the course number was IT141U

CAD111 AutoCAD I — 1 credits
This course provides students with an opportunity to get hands-on experience with computer-aided drafting equipment and software needed to prepare two-dimensional drawings. Topics covered include: architecture of computer systems, terminology, operations, and procedures associated with the microcomputer disk operating system and computer-aided drafting commands are covered.

Lecture hours: 0
Lab/Clinic hours: 48

Prerequisite(s): CIS102 Introduction to Computers

Course Fee:

Prior to Fall 2006 the course number was IT110U

CAD117 AutoCAD II — 3 credits
This intermediate course provides hands-on experience with a CAD environment to enhance two-dimensional computer-aided drafting skills. It integrates materials specifications, manufacturing processes, and applications for machine elements.

Lecture hours: 16
Lab/Clinic hours: 64

Prerequisite(s): CAD105 CAD I

Course Fee:

Prior to Fall 2006 the course number was IT205U

CET104 Plan Reading — 2 credits
Students examine and study typical plans for building, construction, and other related plans.

Lecture hours: 16
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was CE103U

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:

CET123 Construction Drawings and Contracts — 3 credits
The course examines typical building and civil construction plans and introduces the methods of bidding and

contracting for building projects.

Lecture hours: 32
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: $26.00

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: $28.00

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: $40.00

Prior to Fall 2006 the course number was CE204U

CET231 Construction Materials/Testing — 2 credits
This course is a study of the general physical properties of materials related to their strength and deformation, specific properties of construction materials, and laboratory procedures for testing materials.

Lecture hours: 16
Lab/Clinic hours: 48

Prerequisite(s): MAT122 College Algebra or MAT744 Technical Math

Course Fee:

Prior to Fall 2006 the course number was CE205U

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: $23.00

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:

CHM110 Introduction to Chemistry (KCC) — 3 credits
Introduces chemistry to those with little or no previous background in chemistry and is preparatory for further course work in chemistry including Intro to Organic & Biochemistry for Nursing students. The course includes a study of chemical structure and bonding, measurements, periodic table, nuclear chemistry weight/volume relationships in chemical reactions, and solution chemistry. For more information contact Kirkwood Community College.

Lecture hours: 48
Lab/Clinic hours: 0

Course Fee:

CHM111 Introduction to Chemistry Laboratory (KCC) — 1 credits
For more information contact Kirkwood Community College.

Lecture hours: 0
Lab/Clinic hours: 32

Prerequisite(s): CHM110 Introduction to Chemistry

Course Fee:

CHM122 Introduction to General Chemistry — 4 credits

This course is 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

Course Fee: $43.00

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: $37.00

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. The course centers around topics covered under the broader heading of elements, compounds, reactions, energy changes, structure, and properties. Laboratory exercises are coordinated with lecture topics where possible and are intended to augment and support those topics.

Lecture hours: 48
Lab/Clinic hours: 32

Prerequisite(s):

Other Requirements: High school Chemistry or consent of instructor

Course Fee: $46.00

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 ore 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: $36.00

Prior to Fall 2006 the course number was CH111T

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.

Lecture hours: 16
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was CH181T, CH184T

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.

Lecture hours: 16
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was IT106U

CIS112 Computer Applications — 2 credits
This course in microcomputer programming provides students with an opportunity to get hands-on experience in application and operations. Software applications used are: spreadsheet and MathCAD. Course emphasis is on engineering technology applications-based problems.

Lecture hours: 16
Lab/Clinic hours: 32

Prerequisite(s): CIS102 Introduction to Computers

Course Fee:

Prior to Fall 2006 the course number was IT126U

CIS142 Computer Science — 4 credits
This course is an introduction to the discipline of computer science using a breadth-first approach. The course focuses on program design techniques, program development processes, abstractions, and basic data structures. Additional enrichment topics from the discipline will be selected, including software engineering practices, social and ethical issues of computing, and a broad overview of the discipline.

Lecture hours: 48
Lab/Clinic hours: 32

Course Fee: $34.00

Prior to Fall 2006 the course number was CS116T

CIS153 Data Structures — 4 credits
This course is a continuation of the topics covered in CIS-142 Computer Science also using a breadth-first

approach. The course focuses on data abstraction and the development of abstract data types. It includes a discussion of various common data structures, the design and analysis of algorithms, graphs, files, and other appropriate topics. The course will also include a more in-depth introduction to software engineering and other enrichment topics.

Lecture hours: 48
Lab/Clinic hours: 32

Prerequisite(s): CIS142 Computer Science

Course Fee:

Prior to Fall 2006 the course number was CS118T

CIS171 Java — 3 credits
This course is designed to give the student the tools and the knowledge to program using the Java language.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was IF130U

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.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): CIS171 Java

Course Fee:

CIS206 Web Scripting — 3 credits
This course is designed to give students experience in creating dynamic web sites. Students will use Java, VBScript, and PERL to create information-processing scripts and applets. Programming Active Server Pages for Internet Information Server will also be covered.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): GRA150 Introduction to Web Design

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 a web language as a server side language.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): GRA150 Introduction to Web Design

Course Fee:

CIS217 Data Driven Web Page — 3 credits

This course is designed to give the student the tools and knowledge to program a web language and a database into a dynamic data driven web page. This course covers topics such as entering and retrieving data from a database through a website and setting up administration pages for the website to manage the database.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): GRA150 Introduction to Web Design, CIS215 Server Side Web Programming, and CIS303 Introduction to Data Base

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. This course will expect students to create entire web sites using information learned in this course. A practical hands-on approach will be used in this course.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): CIS-215 Server Side Web Programming and GRA-150 Introduction to Web Design

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.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): GRA-150 Introduction to Web Design

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): GRA150 Introduction to Web Design

Course Fee:

CIS245 Extensible Stylesheet Language/ Transformations — 3 credits
This course is designed to give students the tools and knowledge to program using Extensible Markup Language (XML), Extensible Style sheet Language (XSL), and Document Type Definitions (DTD). The course will include a brief explanation of XML and DTD. It will then study in detail the templates used in XSL to transform XML into final presentation formats.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): Introduction to Computer Science, Visual Basic Programming, and Java Programming or have permission of the instructor

Course Fee:

Prior to Fall 2006 the course number was IF232U

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: 48
Lab/Clinic hours: 0

Prerequisite(s): GRA150 Introduction to Web Design

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

CIS510 Systems Implementation — 3 credits
This course is designed to give the student a background in project management and system implementation with regards to information technology. Students will manage a project through each of six phases. Students will research technology, consider options; evaluate return on investment, beta testing, implementation schedules, and on-going support.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was IF105U

CIS604 Visual Basic — 3 credits
This class will introduce students to creating programs using the Visual Basic language. Students will gain experience in creating applications and accessing databases with Visual Basic.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): CIS142 Computer Science

Course Fee: $33.00

Prior to Fall 2006 the course number was IF203U

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: 32
Lab/Clinic hours: 32

Course Fee:

CLS108 Faces of Culture — 3 credits
This course is based on a telecourse exploring human adaptation to environment from the beginnings of the human species to the present. This course focuses on the thesis that every society is based on an integrated culture that satisfies human needs and facilitates survival. Demonstrating this theme are such cultures as the Nuer of the eastern cattle region of Africa, the Trobriand Islanders of the South Pacific, the Kung of Africa, and the Yucatec Maya of Mexico. "Faces" from Western industrial countries and their subcultures are examined as well. Major course topics include the nature of culture, how cultures are studied, language and communication, marriage and the family, political organization, religion and magic, culture change, culture and personality, the arts, patterns of subsistence, and kinship and descent.

Lecture hours: 48
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was HM191T

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: 0

Course Fee:

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: 0

Course Fee:

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: 0

Course Fee:

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: 0

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: 0

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: 0

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: $25.00

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: $85.00

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: $29.00

Prior to Fall 2006 the course number was NR108U

CNS121 Environmental Conservation — 3 credits

This course enables students to learn about their environment by providing activities both in and out of the classroom. 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. Students are introduced to the use of geographic information systems in the management of both natural and manmade environments. Laboratory investigations are conducted in the natural environment as well as within the classroom.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee: $25.00

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: $100.00

CNS136 Aquatic Management — 3 credits
This course introduces aquatic conservation and management. Basic background on aquatic environments, the ecology of fishes, 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: $25.00

Prior to Fall 2006 the course number was NR136U

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: $25.00

Prior to Fall 2006 the course number was NR138U

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: $100.00

CNS201 Conservation Biology — 4 credits
Conservation Biology is a new science that 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. The field laboratory (outdoor) activities necessary for this course require that it be offered in the Fall term only.

Lecture hours: 48
Lab/Clinic hours: 32

Prerequisite(s): CNS121 Environmental Conservation

Course Fee: $25.00

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: $25.00

Prior to Fall 2006 the course number was NR204U

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.

Lecture hours: 0
Lab/Clinic hours: 32

Prerequisite(s): CNS107 Outdoor Recreation Techniques

Course Fee: $424.00

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: $54.00

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 roadsides. 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 hydroseeder.

Lecture hours: 32
Lab/Clinic hours: 0

Course Fee: $25.00

Prior to Fall 2006 the course number was NR231U

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.

Lecture hours: 48
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was CM140T

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: 0

Course Fee:

Prior to Fall 2006 the course number was CM143T

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: 0

Course Fee:

Prior to Fall 2006 the course number was CM145T

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: 0

Course Fee:

Prior to Fall 2006 the course number was CM147T

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: 0

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: 0

Course Fee:

Prior to Fall 2006 the course number was CM124T

COM712 Business Communications — 3 credits
This course presents the basic elements of grammar and usage with an emphasis on spelling, sentence structure, and expository writing for effective communication.

Lecture hours: 48
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was CM100U

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: 0

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: 0

Course Fee:

Prior to Fall 2006 the course number was CM102U

COM928 Independent Study — 1 credits

Lecture hours: 0
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was CM181T

CON102 Intro to Residential Construction — 2 credits
Students will be introduced to basic residential construction history, terminology, materials, and basic construction techniques. This course will cover basic information and develop manual skills needed to begin construction of a new home.

Lecture hours: 19
Lab/Clinic hours: 32

Course Fee:

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

Course Fee: $29.00

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: 0

Course Fee:

Prior to Fall 2006 the course number was CT101U

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: $23.00

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: $23.00

Prior to Fall 2006 the course number was CT209U

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: $34.00

Prior to Fall 2006 the course number was CT104U

CON249 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, students will correctly size some systems and study working drawings of each of the systems.

Lecture hours: 32
Lab/Clinic hours: 0

Prerequisite(s): DRF113 Fundamentals of Technical Drafting

Course Fee:

Prior to Fall 2006 the course number was CT201U

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: 0

Course Fee:

CON302 Building Science I — 1 credits
Students will apply building science methods to determine how insulation, moisture, building pressures, heat flow, and durable design apply to today's residential building methods.

Lecture hours: 16
Lab/Clinic hours: 0

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: 0

Course Fee: $32.00

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: 0

Course Fee: $52.00

Prior to Fall 2006 the course number was IT239U

CRJ100 Intro 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 course, corrections, and the juvenile justice system.

Lecture hours: 48
Lab/Clinic hours: 0

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: 0

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: 0

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: 0

Prerequisite(s): CRJ100 Intro 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: 0

Prerequisite(s): CRJ131 Criminal Law and Procedure

Course Fee:

Prior to Fall 2006 the course number was PL201U

CRJ141 Criminal Investigation — 3 credits
This course involves the study of techniques and procedures in investigating various crimes. This will involve various types of criminal activities and the methods used to investigate them.

Lecture hours: 48
Lab/Clinic hours: 0

Prerequisite(s): CRJ242 Applied Criminalistics or instructor approval

Course Fee:

Prior to Fall 2006 the course number was PL232U

CRJ151 Defensive Tactics — 2 credits
This course covers the basic self defense moves and control techniques necessary to protect the officer. Emphasis will be placed on physical fitness, officer safety, criminal, and civil liability.

Lecture hours: 16
Lab/Clinic hours: 32

Prerequisite(s): PEH110 Personal Wellness

Course Fee: $25.00

Prior to Fall 2006 the course number was PL214U

CRJ200 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: 0

Course Fee:

Prior to Fall 2006 the course number was SO104T

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: 0

Course Fee:

Prior to Fall 2006 the course number was SO106T

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: 0

Prerequisite(s): CRJ110 Patrol Procedures

Course Fee:

Prior to Fall 2006 the course number was PL202U

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: 0

Other Requirements: Enrollment limited to Police Science students.

Course Fee: $35.00

Prior to Fall 2006 the course number was PL216U

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: 0

Prerequisite(s): CRJ100 Intro to Criminal Justice and CRJ120 Intro to Corrections

Course Fee:

Prior to Fall 2006 the course number was CJ220T

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 Traffic Collision Investigation — 3 credits
This course covers the fundamentals of traffic investigation. How an officer responds to a collision, collects information, photographs the scene, and collects evidence. Emphasis will be placed on the Iowa Motor Vehicle Code and O.W.I. investigation.

Lecture hours: 48
Lab/Clinic hours: 0

Prerequisite(s): CRJ100 Intro to Criminal Justice CRJ-110 Patrol Procedures

Course Fee:

Prior to Fall 2006 the course number was PL134U

CRJ252 Basic Firearms — 1 credits
This course covers the fundamentals of using firearms. Emphasis is placed on safety, care, and practical use of firearms as a Law Enforcement Officer.

Lecture hours: 32
Lab/Clinic hours: 0

Other Requirements: Enrollment limited to Police Science students

Course Fee: $315.00

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): CRJ252 Basic Firearms

Course Fee: $315.00

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: 0

Prerequisite(s): CRJ100 Intro to Criminal Justice and CRJ110 Patrol Procedures, or CRJ120 Intro to Corrections, CRJ200 Criminology, and CRJ201 Juvenile Delinquency, and CRJ216 Employment Strategies for Criminal Justice

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: 0

Other Requirements: Program advisor consent.

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: 0

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: 0

Prerequisite(s): CRJ100 Intro to Criminal Justice, CRJ110 Patrol Procedures, CRJ244 Traffic Collision Investigation, CRJ151 Defensive Tactics

Other Requirements: 2.00 cumulative GPA

Course Fee: $35.00

Prior to Fall 2006 the course number was PL208U

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: 0
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 autobody welding.

Lecture hours: 48
Lab/Clinic hours: 144

Course Fee: $120.00

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: $100.00

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: $110.00

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: $90.00

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: $140.00

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: $210.00

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: $155.00

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 refinish 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: $160.00

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: $210.00

Prior to Fall 2006 the course number was AR220U

CSC110 Introduction to Computers — 3 credits
This is 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, and spreadsheet software. Exposure to and use of the Internet for solving information needs is an integral part of the course.

Lecture hours: 48
Lab/Clinic hours: 0

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: 0

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: 0

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: 0

Prerequisite(s): BIO158 Basic Anatomy and Physiology, BIO160 Basic Anatomy and Physiology Lab, DEA103 Orientation to Dental Assisting

Course Fee: $22.00

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: $235.00

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: $71.00

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: $62.00

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: $261.00

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: $65.00

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: 0

Other Requirements: Dental Assisting Semester I courses and/or departmental approval. Current CPR and Health Sciences Department Exposure Control Program.

Course Fee: $76.00

Prior to Fall 2006 the course number was DA135U

DEA557 Assisting Clinic II — 3 credits
This course provides students with clinical chairside assisting experience in a dental office setting. Student experiences are planned and provided to assist students to apply acquired knowledge and understanding of dental assisting responsibilities and procedures. Private, general, and specialty dental offices are selected by the program coordinator according to specific criteria for clinical training of students. All clinical procedures accomplished by students will be performed with supervision by participating dentists and dental staff personnel together with periodic visitation of program instructors. Completion of this course of clinical training to a successful level of proficiency and competency will substantiate that the student has, in fact, progressed to performing as a dental assistant for office utilization.

Lecture hours: 0
Lab/Clinic hours: 24

Other Requirements: Successful completion of Dental Assisting Semester I and II and/or departmental approval. Current CPR and Health Sciences Department Exposure Control Program.

Course Fee:

Prior to Fall 2006 the course number was DA158U

DEA595 Career Strategies and Seminar — 2 credits
This course provides students with opportunities to critique evaluate and discuss their clinical experiences and observations in private dental offices. Additionally, this course assists students in learning how to acquire and attain continued success in the profession with emphasis on personal career interests and continued educational opportunities in dental assisting. In addition, this course provides discussion of legal aspects and employment strategies for dental assisting.

Lecture hours: 16
Lab/Clinic hours: 32

Course Fee: $65.00

Prior to Fall 2006 the course number was DA150U

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: 16
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was DA136U

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, pegboard posting, banking, appointment control, recall management, inventory control, credit and collection, and employer records management. Instruction is also 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: 1
Lab/Clinic hours: 2

Course Fee:

Prior to Fall 2006 the course number was DA134U

DHY113 Dental Hygiene Anatomical Sciences — 3 credits
This course familiarizes the student with the anatomy of the head and neck, oral structures; and morphology, structure and function of teeth. Knowledge of the anatomy of the head and neck and oral structures is an essential prerequisite of such courses as clinical dental hygiene. Additional emphasis of the course is in teaching students the relationships of the scaling instruments to the anatomy of the crown and roots of the teeth.

Lecture hours: 32
Lab/Clinic hours: 32

Other Requirements: Admission to Dental Hygiene program.

Course Fee: $75.00

Prior to Fall 2006 the course number was DH115U

DHY115 Head & 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
Lab/Clinic hours: 0

Other Requirements: Admission to Dental Hygiene program.

Course Fee:

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: 0
Lab/Clinic hours: 32

Other Requirements: Admission to Dental Hygiene program.

Course Fee:

DHY121 Oral Histology & 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
Lab/Clinic hours: 0

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: 0

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: 0

Prerequisite(s): DHY121 Oral Histology & Embryology

Course Fee: $35.00

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: $590.00

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.

Course Fee: $2,240.00

Prior to Fall 2006 the course number was DH116U

DHY185 Clinical Dental Hygiene II — 4 credits

The clinical sequence provides actual clinical experience for the students, allowing each student the opportunity to work with clients in scheduling appointments, treatment planning, and preventative treatment. The numbers of hours spent with clients provides ample time for students to develop the skills necessary for dental hygiene practice. The seminar portion expands students' awareness in client management and preventive procedures.

Lecture hours: 32
Lab/Clinic hours: 144

Prerequisite(s): DHY175 Fundamentals of Clinical Dental Hygiene

Course Fee: $565.00

Prior to Fall 2006 the course number was DH125U

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 and DHY162 Oral Radiology.

Other Requirements: Admission to Dental Hygiene program.

Course Fee:

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: 0
Lab/Clinic hours: 32

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:

DHY201 National Board Review — 1 credits

This course presents review material of the curriculum to assist the student with an organized approach to prepare for the national board of dental hygiene examination.

Lecture hours: 16
Lab/Clinic hours: 0

Other Requirements: Student must be enrolled in the final semester of the Dental Hygiene program.

Course Fee:

Prior to Fall 2006 the course number was DH232U

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: 0

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: 0

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: $50.00

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: 0

Prerequisite(s): DHY292 Clinical Dental Hygiene III

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: 0

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 DH213U Community Oral Health I

Lecture hours: 16
Lab/Clinic hours: 32

Prerequisite(s): DHY254 Community Oral Health I

Course Fee: $70.00

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: 0

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: 0

Prerequisite(s): DHY113 Dental Hygiene Anatomical Sciences, DHY185 Clinical Dental Hygiene II

Course Fee: $25.00

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: 0
Lab/Clinic hours: 96

Prerequisite(s): DHY292 Clinical Dental Hygiene III, DHY254 Community Oral Health I

Course Fee: $65.00

Prior to Fall 2006 the course number was DH230U

DHY292 Clinical Dental Hygiene III — 5 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: 32
Co-op Hours: 192

Prerequisite(s): DHY185 Clinical Dental Hygiene II

Course Fee: $2,125.00

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:

DHY302 Clinical Dental Hygiene IV — 5 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: 32
Co-op Hours: 192

Course Fee: $640.00

Prior to Fall 2006 the course number was DH235U

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 DHY297 Clinical Dental Hygiene III, DHY298 Clinical Dental Hygiene III Seminar, and DHY271 Pain Control.

Course Fee:

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 methodolgy for the students as they prepare for dental hygiene licensure.

Lecture hours: 0
Lab/Clinic hours: 32

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:

DHY901 Independent Study Clinical Dental Hygiene — 1 credits

Lecture hours: 0
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was DH181U

DHY928 Independent Study — 1 credits
Students can earn one to five credits for this Independent Study course.

Lecture hours: 0
Lab/Clinic hours: 0

Course Fee:

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: 0

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: 0

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: $45.00

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 various popular diesel engines.

Lecture hours: 80
Lab/Clinic hours: 96

Course Fee: $165.00

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: $100.00

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: $64.00

Prior to Fall 2006 the course number was DI231U

ECE103 Introduction to Early Childhood Education — 3 credits
Gives students a historical and philosophical foundation of the field of early childhood education. Includes an overview of assessment and trends that influence best practices. Explores careers in the field. Addresses influences of families and diversity.

Lecture hours: 48
Lab/Clinic hours: 0

Course Fee:

ECE107 Foundations of Early Childhood Education — 3 credits
This course is designed to give students a background of information about the field of early childhood education. Students will explore the theory of play and will become acquainted with the range of early childhood programs. Visits to community programs for young children enhance classroom learning.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was CD101U

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: 0

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: 0

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: 0

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: 0

Course Fee: $32.00

Prior to Fall 2006 the course number was CD104U

ECE145 Curriculum, Environment and Teaching Materials — 3 credits
This course examines age appropriate curriculum for children ages birth through five years. Students will observe a real classroom through one-way glass. Students study the impact of effective learning environments and teaching materials upon children's learning. Opportunities to develop and test teaching materials in the children's classrooms provide students with practical experience.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): ECE146 Curriculum: Three Through Five Years

Course Fee:

Prior to Fall 2006 the course number was CD137U

ECE146 Curriculum: Three Through Five Years — 5 credits
Developmentally appropriate activities and materials for young children are explored. Students are exposed to literacy, literature, art, music, science, math, and nutrition activities that encourage growth and development in children.

Lecture hours: 64
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was CD105U

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: 0

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: 0

Course Fee:

ECE170 Child Growth and Development — 3 credits
Traces human development from the time of conception. Looks at the physical, social, emotional, mental and language development at all stages of growth and examines the prevailing theories associated with our current understanding of children.

Lecture hours: 48
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was CD102U

ECE171 Child Growth and Development — 3 credits
This course traces human development from the time of conception and looks at the physical, social, emotional, mental, and language development at all stages of growth and examines the prevailing theories associated with our current understanding of children.

Lecture hours: 64
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was CD102U

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: 0

Course Fee:

Prior to Fall 2006 the course number was CD131U

ECE240 Observing and Managing Child Behavior — 2 credits
This course introduces students to studying factors that will be meaningful in explaining behavior. The students learn to gather data objectively and become proficient in observing, interpreting, and managing

young children's behavior.

Lecture hours: 32
Lab/Clinic hours: 0

Prerequisite(s): ECE146 Curriculum: Three Through Five Years

Course Fee:

Prior to Fall 2006 the course number was CD202U

ECE243 Early Childhood Guidance — 3 credits

Lecture hours: 0
Lab/Clinic hours: 0

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 through field trips.

Lecture hours: 48
Lab/Clinic hours: 0

Prerequisite(s): ECE146 Curriculum: Three Through Five Years ECE145 Curriculum, Environment and Teaching Materials

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: 0

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: 0
Co-op Hours: 64

Prerequisite(s): ECE146 Curriculum: Three Through Five Years

Course Fee:

Prior to Fall 2006 the course number was CD141U

ECE275 Field Experience II — 3 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: 16
Lab/Clinic hours: 0
Co-op Hours: 128

Prerequisite(s): ECE146 Curriculum: Three Through Five Years

Course Fee:

Prior to Fall 2006 the course number was CD214U

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: 0

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: 0

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: 0

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: 0

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: 0

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: 0

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: 0

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: 0

Course Fee:

Prior to Fall 2006 the course number was EC102T

EDU216 Introduction to Teaching — 3 credits
This course is designed to help students become aware of the realities of teaching and gain insight into the process of teaching. This course 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: 0

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: 0

Prerequisite(s): EDU216 Introduction to Teaching, or EDU240 Educational Psychology, or EDU235 Children's Literature, or SOC160 Introduction to Social Work, or SOC110 Introduction to Sociology, or SOC205 Diversity in America, or SOC200 Minority Group Relations, or COM148 Diversity and the Media, or LIT133 Minority Voices in U.S. Literature, or WST101 Women's Studies.

Course Fee:

Prior to Fall 2006 the course number was ED235T

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: 0

Course Fee:

Prior to Fall 2006 the course number was ED103T

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: 0

Prerequisite(s): PSY111 Introduction to Psychology and PSY121 Developmental Psychology

Course Fee:

Prior to Fall 2006 the course number was ED205T

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 classroom or other locations where learning takes place. 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 students to select, arrange, utilize, and produce a variety of resources to enhance student learning.

Lecture hours: 48
Lab/Clinic hours: 0

Prerequisite(s): EDU240 Educational Psychology or EDU235 Children's Literature

Course Fee:

EDU800 Exploring Math & 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: 0

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: 0

Course Fee:

Prior to Fall 2006 the course number was ED206T

EGR400 PLTW Introduction to Engineering Design — 4 credits

Covers design concepts such as sketching, drawing, measuring, geometric shapes, solids, dimensioning, tolerancing, modeling, and reverse engineering.

Lecture hours: 175
Lab/Clinic hours: 0

Course Fee:

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:

EGT115 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: 0

Prerequisite(s): ARC174 Construction Drawings, ARC175 Building Systems, MAT744 Technical Math

Course Fee:

Prior to Fall 2006 the course number was CT203U

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: $23.00

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: $26.00

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: $32.00

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: $37.00

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 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 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 Mfg. — 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: 0

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 & 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:

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: 0

Prerequisite(s): MFG153 Basic Blueprint Reading

Course Fee:

Prior to Fall 2006 the course number was IS152U

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 both mechanical techniques and CAD.

Lecture hours: 16
Lab/Clinic hours: 64

Prerequisite(s): ELT192 Intro to EET Computer Science

Course Fee: $60.00

Prior to Fall 2006 the course number was EE135U

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: $37.00

Prior to Fall 2006 the course number was ST240U

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, and wiring techniques.

Lecture hours: 16
Lab/Clinic hours: 64

Prerequisite(s): MAT772 Applied Math

Course Fee: $187.00

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: $24.00

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

Prerequisite(s): ELT320 Electronic Devices, ELT311 Digital Circuits and Systems

Course Fee: $37.00

Prior to Fall 2006 the course number was EE236U

ELT192 Intro 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: $28.00

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: $23.00

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: $43.00

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: $134.00

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: $43.00

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, memory devices, and logic families.

Lecture hours: 32
Lab/Clinic hours: 96

Prerequisite(s): MAT514 Electronics Math II

Course Fee: $52.00

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:

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: $63.00

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: $29.00

Prior to Fall 2006 the course number was EE231U

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: $148.00

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: $43.00

Prior to Fall 2006 the course number was ST130U

ELT600 Applied Computer Programming — 3 credits
This course introduces students to Visual Basic 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): ELT192 Intro to EET Computer Science

Course Fee:

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: $37.00

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): ELT700 Microprocessors

Course Fee: $30.00

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: $37.00

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): ELT605 Operating Systems

Course Fee: $22.00

ELT736 Instrumentation & 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: $43.00

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:

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: 0

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 writing 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: 0

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: 0

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
Lab/Clinic hours: 0

Prerequisite(s): ENG105 Composition I

Course Fee:

Prior to Fall 2006 the course number was CM118T

ENG108 Composition II: Technical Writing (KCC) — 3 credits
Provides concepts, principles and practice of writing and analyzing documents in business, science (including health occupations) and industry. Research emphasized.

Lecture hours: 48
Lab/Clinic hours: 0

Prerequisite(s): ENG105 Composition I or ENG120 College Writing

Course Fee:

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: 0

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: 0

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: $24.00

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 Photovoltaic 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, photo-voltaic 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: 0

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: 0

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: 0

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: 0

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.

Lecture hours: 48
Lab/Clinic hours: 32

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

FIN101 Principles of Banking — 3 credits

This course provides an introduction to entry-level banking principles including banking and its relationship to the economy, why financial institutions are in business, and what services these institutions offer. Students will gain an understanding of the interrelationship of various departments within the institutions and their contributions toward profitability.

Lecture hours: 48
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was FN101T

FIN110 Money and Banking — 3 credits

The course explores money and its role in the U.S. economy. It will include a study of the Federal Reserve system and its policies; bank operations, trends, issues and regulations; and the banking system's role in international trade.

Lecture hours: 48
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was FN135T

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: 0

Course Fee:

FIN130 Principles of Finance — 3 credits

This course is a broad decision-making course on the dynamics of finance emphasizing its global nature involving transactions between suppliers and users of capital. The course includes such topics as cash flow, financial forecasting, leverage, asset management, the time value of money, bond and stock valuation, the cost of capital, capital budgeting, and dividend policies.

Lecture hours: 48
Lab/Clinic hours: 0

Prerequisite(s): MAT156 Statistics or MAT110 Math for Liberal Arts

Course Fee:

Prior to Fall 2006 the course number was FN103T

FIN175 Commercial and Mortgage Lending — 3 credits

This course includes primary definitions, concepts, and principles of both commercial and mortgage lending. It covers aspects of lending from the institution's as well as the customer's perspective. Mortgage lending includes individual mortgages and residential real estate investments. Differing objectives of the lender and the borrower are examined and the human relations aspect of commercial lending is recognized.

Lecture hours: 48
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was FN131T

FIN190 Trust Operations and Fund Management — 3 credits

This course presents an overview of the trust department including how it fits into a bank's overall operations. Trust services, tax and legal consequences, regulation and other estate issues are addressed as they affect satisfaction of customer needs. Trust investment risk and management are covered from the perspective of the bank as a business.

Lecture hours: 0

Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was FN133T

FIR105 Fire Science Career Orientation (KCC) — 2 credits
This course provides the student with the knowledge and skills necessary to pursue a career in the fire service. Instructional units include working with paid firefighters on the job. For more information contact Kirkwood Community College.

Lecture hours: 0
Lab/Clinic hours: 0

Course Fee:

FIR110 History and Philosophy of the Fire Service (KCC) — 2 credits
Provides students with an understanding of where the fire service has come from so they can better help steer fire service into the future. Instructional units are facilitated through a guided self-study format. For more information contact Kirkwood Community College.

Lecture hours: 0
Lab/Clinic hours: 0

Course Fee:

FIR125 Fire Behavior and Building Design (KCC) — 3 credits
This course studies building construction as it relates under fire conditions. The course reviews building codes as related to the structural strength of various designs. Qualitative study of chemical and physical aspects of fuels, the combustion process and the products of combustion as test aspects apply to the causes, spread and extinguishing of a fire. For more information contact Kirkwood Community College.

Lecture hours: 48
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was FS101U

FIR130 Fundamentals of Fire Prevention (KCC) — 3 credits
This course covers the techniques, procedures, regulations and enforcement of codes (fire, building, life safety) in various occupancies. Communications with the property owner on changes to meet code requirements will be presented. For more information contact Kirkwood Community College.

Lecture hours: 48
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was FS141U

FIR146 Firefighting Tactics and Strategy (KCC) — 3 credits
This course studies methods of coordinating personnel and equipment deploying apparatus on the fire ground. Practical methods of controlling and extinguishing structural and other types of fires are discussed. The course includes simulation exercises. For more information contact Kirkwood Community College.

Lecture hours: 48
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was FS131U

FIR150 Fire Detection and Suppression Systems (KCC) — 3 credits
This course 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. For more information contact Kirkwood Community College.

Lecture hours: 48
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was FS151U

FIR180 Chemistry of Hazardous Materials (KCC) — 3 credits
This course 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. For more information contact Kirkwood Community College.

Lecture hours: 48
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was FS111U

FIR183 Hazardous Materials Management (KCC) — 3 credits
This course discusses the properties of chemically active substances related to hazardous materials. Identifies and demonstrates techniques, methods, strategies to mitigate haz-mat incidents. The course covers state and federal laws as they relate to management of hazardous materials. For more information contact Kirkwood Community College.

Lecture hours: 48
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was FS121U

FIR280 Instructional Techniques for Fire Service Training (KCC) — 3 credits
This course 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. For more information contact Kirkwood Community College.

Lecture hours: 48
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was FS161U

FIR330 Fire Service Company Officer (KCC) — 3 credits
Studies the company officer's role in the fire department. Students examine topics including effective communications, organization and management, resource management, leadership, safety, fire prevention and investigation, and pre-planning. The course is written to meet NFPA 1021, Fire Officer I, 2003 edition. Classroom experience consists of lecture with activities and exercises designed to reinforce the topic. Students are required to complete written assignments throughout the course, designed to meet the

requirements of Fire Officer I. Contact Kirkwood Community College for more information.

Lecture hours: 0
Lab/Clinic hours: 0

Course Fee:

FLC145 Chinese I — 5 credits
This is an entry level course designed to provide instruction in basic oral and written Chinese language skills. It also aims at laying a foundation for further study of the language. The primary focus of the course is on developing abilities to converse in daily communicational settings.

Lecture hours: 80
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was FL134T

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: 0

Course Fee:

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: 0

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: 0

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: 0

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: 0

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: 0

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: 0

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: 0

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: $482.00

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: $205.00

Prior to Fall 2006 the course number was GC133U

GRA114 Production Processes — 4 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: 64

Prerequisite(s): GRA200 Applications of Color and GRA142 Graphic Imaging

Course Fee: $72.00

Prior to Fall 2006 the course number was GC237U

GRA124 Electronic Illustration — 4 credits
This course is designed to provide students with experience using computer generated illustrative techniques. Emphasis is a hands-on introduction to the leading drawing software.

Lecture hours: 48
Lab/Clinic hours: 32

Prerequisite(s): GRA174 Typography and GRA133 Desktop Publishing

Course Fee: $42.00

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: $38.00

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: $38.00

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: $33.00

Prior to Fall 2006 the course number was IF135U

GRA151 Web Design — 3 credits
This course introduces students to web page construction. Emphasis is a "hands-on" introduction to the leading web page construction programming language and web page software.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): GRA200 Applications of Color, GRA142 Graphic Imaging, and GRA186 Design and Layout II

Course Fee: $42.00

Prior to Fall 2006 the course number was GC235U

GRA160 Interactive Multimedia — 3 credits
This course emphasizes designing interactive presentations using multimedia. Students will conceptualize, design, and deliver interactive content.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): GRA185 Design and Layout and GRA124 Electronic Illustration

Course Fee: $43.00

Prior to Fall 2006 the course number was GC205U

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: $33.00

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: $42.00

Prior to Fall 2006 the course number was GC112U

GRA185 Design and Layout — 4 credits
This course applies 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 facet of the population is explored in hands-on applications.

Lecture hours: 32
Lab/Clinic hours: 64

Prerequisite(s): GRA105 Drawing and Composition, GRA174 Typography, and GRA133 Desktop Publishing

Course Fee: $42.00

Prior to Fall 2006 the course number was GC201U

GRA186 Design and Layout II — 4 credits
This course continues to explore the process of graphic design. Specific design formats are identified and experience is gained through advanced hands-on applications.

Lecture hours: 32
Lab/Clinic hours: 64

Prerequisite(s): GRA185 Design and Layout and GRA124 Electronic Illustration

Course Fee: $38.00

Prior to Fall 2006 the course number was GC204U

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: $42.00

Prior to Fall 2006 the course number was GC212U

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

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: $43.00

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: 0

Prerequisite(s): GRA133 Desktop Publishing and GRA174 Typography

Course Fee: $100.00

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: $43.00

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: $42.00

Prior to Fall 2006 the course number was GC236U

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: 0

Co-requisite(s): HCR 414 Controls for HVACR; HCR 275 Applied Practices II; HCR 516 HVACR Systems II

Course Fee:

HCR125 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:

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:

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: $174.00

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: $174.00

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: 0

Prerequisite(s): HCR265 Applied Practices I, HCR444 HVACR Systems I, and MAT772 Applied Math

Course Fee: $259.00

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: 0

Prerequisite(s): HCR516 HVACR Systems II, HCR275 Applied Practices II, HCR444 HVACR Systems I, and HCR402 Applied Electricity for HVACR

Course Fee: $95.00

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: 0

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: 0

Course Fee: $65.00

Prior to Fall 2006 the course number was HA101U

HCR502 Applied Controls for HVACR — 2 credits
This course is a study of electronic controls and systems for H.V.A.C.R.

Lecture hours: 32
Lab/Clinic hours: 0

Prerequisite(s): HCR414 Controls for HVACR and HCR602 HVACR Systems III

Course Fee: $71.00

Prior to Fall 2006 the course number was HA105U

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: 0

Course Fee: $123.00

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: 0

Prerequisite(s): HCR516 HVACR Systems II and HCR502 Applied Controls for HVACR

Course Fee: $71.00

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: 0

Prerequisite(s): HCR444 HVACR Systems I

Course Fee:

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: 0
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

HIS112 Western Civilization: Early Modern to Present — 4 credits
This course traces the development of Western civilization from prehistory to the end of the seventeenth century. The course will explore the major political, social, economic, scientific, intellectual, cultural, and religious developments contributing to Western society. This included the significant events and contributions of early Middle Eastern civilizations, classical and Hellenistic Greece, the Roman Empire, the Christian church, Medieval Europe, the Renaissance, the Reformation, and the scientific revolution.

Lecture hours: 64
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was HM101T

HIS113 Western Civilization: Early Modern to Present — 4 credits
This course will continue exploring the development of Western Civilization covering the end of the Seventeenth Century until the present. 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 Age of Enlightenment, the French revolution, Romanticism, colonialism, World War I, World War II, the Cold War, and the new European order.

Lecture hours: 64
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was HM102T

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
Lab/Clinic hours: 0

Course Fee:

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: 0

Course Fee:

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: 0

Course Fee:

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: 0

Course Fee:

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: 0

Course Fee:

Prior to Fall 2006 the course number was HY150T, HY191T

HIS155 American Civilization — 3 credits
American Civilization is a thematic and interdisciplinary examination of the American experience from

prehistory to the present. The course emphasizes the contributions and experiences of the many social groups who created and built the United States. Themes highlighted include labor, economics, religion, diversity, inequality, reform, and dissent.

Lecture hours: 48
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was SS100T

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: 0

Prerequisite(s): HIS151 U.S. History to 1877, or HIS152 U.S. History Since 1877, or HIS155 American Civilization

Course Fee:

HIS214 Russian History and Culture — 3 credits
This European history course examines the Russian experience from the emergence of a 9th century Slavic society through the Soviet Union to the present. This course will include the development of the political, cultural, intellectual, economic, literary, diplomatic, and social history of the period.

Lecture hours: 48
Lab/Clinic hours: 0

Prerequisite(s): HIS118 Western Civilization II: Early Modern or HIS119 Western Civilization III: The Modern Period

Course Fee:

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: 0

Prerequisite(s): HIS152 U.S. History Since 1877 or HIS155 American Civilization

Course Fee:

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: 0

Course Fee:

HIS277 History of Women in the United States — 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: 0

Prerequisite(s): HIS155 American Civilization or HIS151 U.S. History to 1877 or HIS152 U.S. History Since 1877 or WST101 Women's Studies

Course Fee:

Prior to Fall 2006 the course number was HY240T

HIT245 Basic ICD-9-CM Coding — 3 credits
This course introduces the concepts necessary for entry-level coding of diseases, injuries, and hospital procedures.

Lecture hours: 48
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was MS104U

HSC107 Professionals in Health (KCC) — 2 credits
Presents skills and characteristics expected for professional preparation and employability. Provides an overview of the health industry as it relates to health and safety regulations. For more information contact Kirkwood Community College.

Lecture hours: 32
Lab/Clinic hours: 0

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: 0

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): HSC116 Beginning Medical Terminology

Course Fee:

Prior to Fall 2006 the course number was MS132U

HSC210 Health Skills I (KCC) — 1 credits
Introduces basic patient care skills: infection control techniques, measuring and recording vital signs, and body mechanics. Laboratory practice and skill achievement is required. For more information contact Kirkwood Community College.

Lecture hours: 8
Lab/Clinic hours: 16

Course Fee:

HSC211 Health Skills II (KCC) — 1 credits
Introduces basic skills related to patient mobility, methods for ambulation, positioning and range of motion. Discusses causes and effects of immobility. Laboratory practice and skill achievement is required. For more information contact Kirkwood Community College.

Lecture hours: 8
Lab/Clinic hours: 16

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: 0

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: 0

Course Fee:

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: $44.00

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: 0

Course Fee: $43.00

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: $29.00

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:

INT101 Basic Drafting and Rendering — 3 credits
This course is an introduction to the essential skills of drafting, lettering, and watercolor rendering. Students learn visual presentation techniques which are basic to future courses and to the profession.

Lecture hours: 32
Lab/Clinic hours: 64

Course Fee: $433.00

Prior to Fall 2006 the course number was ID101U

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: $123.00

Prior to Fall 2006 the course number was ID102U

INT103 Design and Color Fundamentals for Interiors — 3 credits
The student explores, in depth, the principles and elements of design. Color properties, relationships, and

effects are analyzed. Experimentation in laboratory projects reinforces the concepts presented and demonstrates how they apply to the design of interiors.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee: $203.00

Prior to Fall 2006 the course number was ID103U

INT106 Interior Backgrounds/Window Treatments — 2 credits
This course deals with the shell of the interior: traditional and contemporary wall coverings, the various styles of window treatments, and carpets. Measurements and estimation will be included.

Lecture hours: 16
Lab/Clinic hours: 32

Course Fee: $27.00

Prior to Fall 2006 the course number was ID106U

INT109 History of Interiors I — 2 credits
This course begins a two-semester study of the homes and furniture of the past: ancient to Renaissance, French, English and American.

Lecture hours: 0
Lab/Clinic hours: 0

Course Fee: $69.00

Prior to Fall 2006 the course number was ID109U

INT133 Lighting — 2 credits
This course develops an awareness of the contribution of lighting to the interior. Lighting terminology, electrical symbols, and types of luminaries are included, with emphasis on lighting usage and problem solving.

Lecture hours: 16
Lab/Clinic hours: 32

Prerequisite(s): INT102 Residential Studio I, INT135 Residential Studio II

Course Fee: $38.00

Prior to Fall 2006 the course number was ID133U

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.

Lecture hours: 0
Lab/Clinic hours: 0

Prerequisite(s): INT102 Residential Studio I

Course Fee: $139.00

Prior to Fall 2006 the course number was ID135U

INT137 History of Interiors II — 3 credits
In this second course concerning historical interiors students continue the study begun in INT-109 History of

Interiors I.

Lecture hours: 48
Lab/Clinic hours: 0

Prerequisite(s): INT109 History of Interiors I

Course Fee:

Prior to Fall 2006 the course number was ID137U

INT139 Kitchen Design — 3 credits
This course focuses on the design aspects of the residential kitchen. Kitchen Planning Guidelines, published by the National Kitchen & Bath Association (NKBA), are emphasized. A comprehensive project is completed from the selection of appropriate cabinets, countertops, appliances, fixtures, equipment, materials, and colors to the final concept presentation. NKBA Graphic and Presentation Standards are followed throughout the drawing of a floor plan and specifications, working elevations, and a perspective. Other project parts are included.

Lecture hours: 16
Lab/Clinic hours: 32

Prerequisite(s): INT102 Residential Studio I and INT209 CAD for Interior Designers

Course Fee: $175.00

Prior to Fall 2006 the course number was ID139U

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: $817.00

Prior to Fall 2006 the course number was ID202U

INT204 Quality Buying — 2 credits
This course develops knowledge of the materials and construction of furniture and other items used within the interior. A comparison is made of the broad variety of available product qualities.

Lecture hours: 32
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was ID204U

INT209 CAD for Interior Designers — 3 credits
This course is an introduction to computer-aided design as used within the Interior Design profession.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): INT102 Residential Studio I

Course Fee: $114.00

Prior to Fall 2006 the course number was ID209U

INT232 Contract Studio II — 5 credits
This is a continuation of INT-202 Contract Studio I.

Lecture hours: 0
Lab/Clinic hours: 160

Prerequisite(s): INT202 Contract Studio I

Course Fee: $176.00

Prior to Fall 2006 the course number was ID232U

INT233 Residential Architecture/Construction — 3 credits
The components of this course include an introduction to building principles and materials, American architectural styles, design, and remodeling.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): INT102 Residential Studio I and INT209 CAD for Interior Designers

Course Fee: $29.00

Prior to Fall 2006 the course number was ID233U

INT239 Modern Design — 2 credits
This course is a survey of 20th century furniture design from its beginnings in the last century through the innovations of recent years.

Lecture hours: 32
Lab/Clinic hours: 0

Course Fee: $37.00

Prior to Fall 2006 the course number was ID239U

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

INT300 Textiles for Interior Design — 3 credits
This introductory course in textiles presents the origins and construction of all textile materials. The effects of fiber properties, fabric construction and fabric finishes on selection, use and care of interior textile products are emphasized.

Lecture hours: 48
Lab/Clinic hours: 0

Course Fee: $63.00

Prior to Fall 2006 the course number was ID210U

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: 0

Other Requirements: Must be 4th term Interior Design student with at least a 2.00 GPA.

Course Fee:

Prior to Fall 2006 the course number was ID236U

INT932 Internship — 3 credits

This course provides the student with an opportunity to work in a professional interior design setting. Exposures to various areas of the field are shared, discussed, and critiqued in a classroom/seminar setting.

Lecture hours: 16
Lab/Clinic hours: 0

Other Requirements: Must be 4th term Interior Design student with a cumulative GPA of 2.00.

Course Fee:

Prior to Fall 2006 the course number was ID237U

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: 0

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: 0

Prerequisite(s): ENG105 Composition I Composition 1

Course Fee:

Prior to Fall 2006 the course number was LR100T

LIT133 Minority Voices in US 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: 0

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: 0

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: 0

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: 0

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.

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: 0

Prerequisite(s): HIT245 Basic ICD-9-CM Coding

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): 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: 0

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: 0

Other Requirements: Appropriate placement scores or equivalent

Course Fee:

Prior to Fall 2006 the course number was SC034D

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: 0

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: 0

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: 0

Prerequisite(s): MAT063 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: 0

Prerequisite(s): MAT063 Elementary Algebra or equivalent COMPASS score

Course Fee:

Prior to Fall 2006 the course number was MA111T

MAT117 Math for Elementary Teachers — 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, measurement, and geometry and spatial sense. Activities and models appropriate to elementary school mathematics are used to represent these topics.

Lecture hours: 48
Lab/Clinic hours: 0

Prerequisite(s): MAT063 Elementary Algebra or equivalent COMPASS score

Course Fee:

Prior to Fall 2006 the course number was MA115T

MAT122 College Algebra — 5 credits
This course begins a two semester sequence to prepare students for the calculus sequence. The central theme is the concept of a function and its graph. Functions studied include polynomial, rational, exponential, and logarithmic functions.

Lecture hours: 80
Lab/Clinic hours: 0

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. Topics are presented using a functional approach and include fundamentals of algebra, linear, polynomial, rational, exponential, logarithmic, and trigonometric functions and their applications.

Lecture hours: 64
Lab/Clinic hours: 0

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: 0

Prerequisite(s): MAT122 College Algebra

Course Fee:

MAT140 Finite Math (KCC) — 3 credits

Includes methods of solving linear equations and inequalities. Introduces linear programming, matrices, functions, graphs, counting techniques, probability, mathematics of finance and applications.

Lecture hours: 48
Lab/Clinic hours: 0

Prerequisite(s): MAT102 Intermediate Algebra

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: 0

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: 0

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: 0

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: 0

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:

Prior to Fall 2006 the course number was EE104U

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:

Prior to Fall 2006 the course number was EE134U

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: 0

Prerequisite(s): MAT063 Elementary Algebra, appropriate COMPASS math placement score, or equivalent

Course Fee:

Prior to Fall 2006 the course number was MA112U

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: 0

Course Fee:

Prior to Fall 2006 the course number was WL113U

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: 0

Course Fee:

Prior to Fall 2006 the course number was MA110U

MAT778 Applied Geometry/ Trigonometry — 3 credits

In this course students are exposed to point, line, angles and plane figures, propositions, arc and angles of circles, fundamental geometric constructions, introduction to right triangle trigonometry, oblique triangle trigonometry, the Cartesian coordinate system, compound angles in geometric solids, and trigonometric solutions to simple and complex machine application problems.

Lecture hours: 48
Lab/Clinic hours: 0

Prerequisite(s): MAT772 Applied Math or appropriate placement score

Course Fee:

Prior to Fall 2006 the course number was MA116U

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:

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: 0

Course Fee:

Prior to Fall 2006 the course number was GT203U

MFG122 Machine Trade Printreading I — 3 credits

This basic course begins with terminology, abbreviations, and the alphabet of liens. Interpretation of drawings progresses from single-view drawings to multi-view projections. Orthographic projection and pictorial interpretation is facilitated through visualization exercises. Dimensioning methods and their effect on tolerance accumulation is also studied. Surface texture symbols, casting drawings, sectional views, steel specifications, thread specifications, drawing revisions, metric drawings, and computer-aided drawings are introduced.

Lecture hours: 48

Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was IT102U

MFG132 Machine Trade Printreading II — 3 credits
This course builds on skills developed in Introduction to Print Reading. Topics include: Metric drawings; primary and secondary auxiliary views; splines; weldment drawings; assembly drawings; and geometric dimensioning and tolerancing. Two and three dimensional visualization skills are enhanced through the introduction of progressively more complex drawings. This course culminates with the interpretation of drawings evincing a variety of dimensioning methods and styles, including individual company drafting standards.

Lecture hours: 48
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was IT112U

MFG142 Geometric Dimensioning and Tolerancing — 3 credits
This course introduces the student to the use of Geometric Dimensioning and Tolerancing. It consists primarily learning the names, meanings, and application of the symbols used on engineering drawings that include GD&T.

Lecture hours: 48
Lab/Clinic hours: 0

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: 0

Course Fee:

Prior to Fall 2006 the course number was IS101U

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: $43.00

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: 0

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: 0

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: 0

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: $250.00

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: $100.00

Prior to Fall 2006 the course number was MC133U

MFG305 CNC Operations — 2 credits
This course presents CNC operation, safety, part inspection, CNC cutting tool types and use, as well as part holding techniques. Students will run industrial sized CNC lathes and CNC machining centers. Other common CNC machine controllers are experienced through computer simulation.

Lecture hours: 0

Lab/Clinic hours: 96

Course Fee: $100.00

Prior to Fall 2006 the course number was MC107U

MFG306 CNC Operations II — 2 credits
Students will operate all our CNC equipment to create products and work-holding devices. As much as possible set-up, run-times, and maintenance will be at an industrial pace. Manual equipment will be utilized to assist in creating work-holding devices and run operations that are impractical on our CNC equipment. Students will work together to run our shop like a business. Ways of eliminating down time will be the highest priority.

Lecture hours: 0
Lab/Clinic hours: 96

Prerequisite(s): MFG305 CNC Operations and MFG308 CNC Programming Theory

Course Fee: $100.00

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 cerification 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: 0

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: 0

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: $100.00

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: $100.00

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:

MFG408 Basic Diemaking — 8 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: 48
Lab/Clinic hours: 240

Prerequisite(s): MFG214 Advanced Machine Theory and MFG228 Machine Operations II

Course Fee: $200.00

Prior to Fall 2006 the course number was TD201U

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: 0

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: $100.00

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: $57.00

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: 0

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: $25.00

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: 0

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: $77.00

Prior to Fall 2006 the course number was ST247U

MGT100 What Managers Do — 1 credits
This course is a practical skills-building program that concentrates on the functions that most often determine your success in management.

Lecture hours: 16
Lab/Clinic hours: 0

Course Fee:

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: 0

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: 0

Course Fee:

Prior to Fall 2006 the course number was MM230U

MGT129 First Line Supervision — 1 credits
Students learn how to develop a personal leadership style and build strong teams. Students learn practical strategies to deal with daily realities of planning and conducting meetings; solving problems; crafting documents; training employees; and managing performance, conflict, and change.

Lecture hours: 16

Lab/Clinic hours: 0

Course Fee:

MGT132 How to Make Teams Work — 1 credits
How to Make Teams Work presents team-building techniques in a changing business environment. As a team leader, students will understand what's expected of them and why teamwork is so essential to quality improvement and reengineering efforts.

Lecture hours: 16
Lab/Clinic hours: 0

Course Fee:

MGT136 Leadership Skills for Managers — 1 credits
This course is designed specifically for the manager whose time is at a premium. It provides private, self-paced, individualized study; learning and self-evaluation through in-text exercises.

Lecture hours: 16
Lab/Clinic hours: 0

Course Fee:

MGT142 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: 0

Course Fee:

MGT143 Taking Control with Time Management — 1 credits
Students learn to evaluate personal time challenges; establish realistic work and life goals, and develop and implement a time management plan. Students will develop strategies like information overload, electronic communication, changing technologies, and meeting schedules.

Lecture hours: 16
Lab/Clinic hours: 0

Course Fee:

MGT149 Communication Skills for Managers — 1 credits
Develop your writing ability, make more effective presentations, sharpen your reading and listening skills.

Lecture hours: 16
Lab/Clinic hours: 0

Course Fee:

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: 0

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: 0

Course Fee:

MGT176 Fair, Square, and Legal — 1 credits
This course teaches students about laws governing hiring, managing, and firing decisions and what those laws mean. Students will gain knowledge and the perspective necessary to make safe, effective business decisions that can raise legal liability.

Lecture hours: 16
Lab/Clinic hours: 0

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: 0

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: 0

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: 0

Course Fee:

MGT185 Managing and Resolving Conflict — 1 credits

Get the skills you need to take command of on-the-job conflicts. Spot potential interpersonal conflicts-and defuse them. How, when, where and why to apply the five favored conflict-resolution approaches.

Lecture hours: 16
Lab/Clinic hours: 0

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, 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: 0

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.

Lecture hours: 48
Lab/Clinic hours: 0

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: 0

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: 0

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: 0

Course Fee:

MIL122 Leadership in Changing Environment — 2 credits

Lecture hours: 0
Lab/Clinic hours: 0

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: 0

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 sale process, sales techniques, and selling as a professional career.

Lecture hours: 48
Lab/Clinic hours: 0

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: 0

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: 0

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: 0

Course Fee:

Prior to Fall 2006 the course number was MM130U

MKT184 Customer Service — 3 credits
This course introduces skills and concepts needed for effective customer service necessary in a variety of business settings. Students will examine customer service skills important in external situations working with vendors, suppliers, customers, and clients when dealing with products, services, and information. These techniques will also be applied to internal relationships and situations. An emphasis will be placed on problem solving and conflict resolution.

Lecture hours: 48
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was MM136U

MKT295 Professionalism — 1 credits
This course will present insights into how individuals can successfully fit into organizations. A researched set of organizational values used by companies will be presented and used as a model for development of individual values related to career development. Opportunities to prepare for future career success are offered through a variety of leadership and professional activities.

Lecture hours: 16
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was MM103U

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: 0

Course Fee: $26.00

Prior to Fall 2006 the course number was MT110U

MLT102 Medical Terminology — 2 credits

This course furnishes the tools necessary for building a basic medical terminology vocabulary. Emphasis is on the components of terms (prefixes, suffixes, roots), spelling, pronunciation, and utilization of the medical dictionary.

Lecture hours: 32
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was MT120U

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: $28.00

Prior to Fall 2006 the course number was MT114U

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: $35.00

Prior to Fall 2006 the course number was MT150U

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: $55.00

Prior to Fall 2006 the course number was MT124U

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: $55.00

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: $55.00

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: $55.00

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: $150.00

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: $100.00

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: 0

Course Fee:

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: $150.00

Prior to Fall 2006 the course number was MT216U

MLT270 Immunology and Serology — 2 credits
In this course the focus in 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: $75.00

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: $29.00

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

Course Fee: $31.00

Prior to Fall 2006 the course number was MT226U

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

Course Fee: $31.00

Prior to Fall 2006 the course number was MT229U

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

Course Fee: $29.00

Prior to Fall 2006 the course number was MT230U

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

Course Fee: $30.00

Prior to Fall 2006 the course number was MT234U

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

Course Fee: $32.00

Prior to Fall 2006 the course number was MT236U

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: $75.00

Prior to Fall 2006 the course number was MT232U

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 — 2 credits
Individualized instruction in piano for the beginning, intermediate or advanced student. Requires fourteen 50 minute lessons during the semester. Additional outside practice/preparation is required. May be repeated for credit. No prior musical experience is necessary.

Lecture hours: 32
Lab/Clinic hours: 0

Course Fee: $380.00

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: 0

Course Fee: $380.00

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: 0

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: $60.00

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: 0

Prerequisite(s): NET220 CCNA Exploration Accessing the WAN

Course Fee:

NET205 Network Math — 1 credits
Students will be introduced to math concepts to support network design, planning, and implementation. Binary, hexadecimal, decimal, and Boolean math will be used to support network segmentation. IP addressing, sub-netting, and network masking implement the math concepts into the networking environment.

Lecture hours: 16
Lab/Clinic hours: 0

Course Fee:

NET206 Data Transportation — 1 credits
Students will study detailed operation of each data encoding layer of the OSI model. Secure, dependable end to end delivery of data requires knowledge of all layers and protocols discussed. CISCO router IOS management and troubleshooting will be introduced.

Lecture hours: 16
Lab/Clinic hours: 0

Course Fee:

NET211 CISCO Networking — 2 credits
Students will discuss TCP/IP, Ethernet, Routing, the OSI model, and other topics related to the basic design and concepts of networking.

Lecture hours: 16
Lab/Clinic hours: 32

Course Fee:

Prior to Fall 2006 the course number was IF111U

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: $80.00

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: $70.00

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

Course Fee:

NET221 CISCO Routers — 2 credits
Through this course students will be able to recommend and install network protocols, topologies, and hardware based on a given business case. Students will discuss TCP/IP, Ethernet, Routing, the OSI model, and other topics related to the basic design and concepts of networking.

Lecture hours: 16
Lab/Clinic hours: 32

Prerequisite(s): NET211 CISCO Networking

Course Fee:

Prior to Fall 2006 the course number was IF113U

NET231 CISCO Switches — 2 credits
Through this course students will be able to install and configure Local LANs and VLANs. Students will use Access Control Lists to restrict traffic through a router. Students will design and segment networks using routers and switches.

Lecture hours: 16
Lab/Clinic hours: 32

Prerequisite(s): NET221 CISCO Routers

Course Fee:

Prior to Fall 2006 the course number was IF137U

NET232 CISCO Switches — 3 credits
Through this course students will be able to install and configure Local LANs and VLANs. Students will use Access Control Lists to restrict traffic through a router. Students will design and segment networks using routers and switches.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): NET211 CISCO Networking and NET221 CISCO Routers

Course Fee:

NET241 CISCO Wide Area Networks (WAN) — 2 credits
Through this course students will be able to install and configure Local, Virtual Local, and Wide Area Networks. Students will design and segment networks using routers and switches.

Lecture hours: 16
Lab/Clinic hours: 32

Prerequisite(s): NET232 CISCO Switches

Course Fee:

Prior to Fall 2006 the course number was IF139U

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): NET109 A+ Certification Prep Course, MAT110 Math for Liberal Arts, NET211 CISCO Networking

Course Fee: $70.00

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 (250 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

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: $30.00

NET453 Unix — 3 credits
This course will introduce students to the UNIX operating system. Students will configure UNIX as a workstation. Students will gain experience with multiple features of the operating system.

Lecture hours: 32
Lab/Clinic hours: 32

Other Requirements: Must be a student in one of the Information Technology programs.

Course Fee:

Prior to Fall 2006 the course number was IF141U

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: 0

Prerequisite(s): Instructor approval required. Must have satisfactory grades in supporting classes and demonstrate motivation to attain certification.

Course Fee:

NET511 Novell Administration — 2 credits
This course is designed to prepare students as a NetWare system LAN manager. The goal of this course is to provide the student with skills necessary to install, configure, customize, optimize, network, integrate, and troubleshoot NetWare operating system.

Lecture hours: 16
Lab/Clinic hours: 32

Prerequisite(s): NET123 Computer Hardware Basics, NET131 Operating Systems Software Basics, CIS142 Computer Science, MAT110 Math for Liberal Arts

Course Fee: $27.00

Prior to Fall 2006 the course number was IF221U

NET531 Advanced Novell Administration — 2 credits
This course is a continuation of NET-511 Novell Administration. The goal of the course is to advance the study in the design, implement, and support of the NetWare Server network operating system.

Lecture hours: 16
Lab/Clinic hours: 32

Prerequisite(s): NET511 Novell Administration

Course Fee: $27.00

Prior to Fall 2006 the course number was IF223U

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:

NET663 Web Server Administration — 2 credits
This course is designed to introduce students to the various platforms that support the servicing web sites. Students will install HTTP, FTP, and SMTP servers, configure the services, and tune the servers for performance.

Lecture hours: 16
Lab/Clinic hours: 32

Prerequisite(s): NET131 Operating Systems Software Basics, NET211 CISCO Networking, NET221 CISCO

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Course Fee: $28.00

Prior to Fall 2006 the course number was IF231U

NET710 SQL Database — 2 credits
This course is designed to give the student the basics of computer database administration. The course will 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): CIS142 Computer Science or permission of the instructor

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: 0

Course Fee:

NET916 Experiential Learning — 3 credits
This course will require students to utilize all their learned skills in the simulated development and operation of an ISP and web-hosting company. Students will work in teams throughout the course, providing them an insight into the team-oriented environments in which they will later work.

Lecture hours: 16
Lab/Clinic hours: 64

Course Fee: $25.00

NET916 Experiential Learning — 5 credits
This course will require students to utilize all their learned skills in the simulated development and operation of an ISP and web-hosting company. Students will work in teams throughout the course, providing them an insight into the team-oriented environments in which they will later work.

Lecture hours: 16
Lab/Clinic hours: 64

Course Fee: $25.00

NET932 Internship — 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: 0
Co-op Hours: 192

Prerequisite(s): NET-109 A+ Certification Prep Course and completed 30 credits in one of the following programs: Network Administration and Engineering; Information Systems Management; or Web Design and Development.

Course Fee:

OPT101 Optometric/Ophthalmic Assisting I — 3 credits
The student will be knowledgeable of the history of optometry, the professions in optometry, the role of the optometric assistant, the ethical responsibilities, the proper telephone techniques and booking appointments, preparation of medical records, work with ophthalmic equipment, basic optics and refractive errors, work with optometric prescription, work with ophthalmic lenses and frames, basic anatomy and physiology of the body and the human eye.

Lecture hours: 48
Lab/Clinic hours: 0

Course Fee: $31.00

Prior to Fall 2006 the course number was OA101U

OPT102 Optometric/Ophthalmic Assisting I Lab — 3 credits
The knowledge and concepts of OPT-101 Optometric/Ophthalmic Assisting I are applied in hands on demonstration. Practice and competency test outs.

Lecture hours: 0
Lab/Clinic hours: 96

Course Fee: $31.00

Prior to Fall 2006 the course number was OA102U

OPT103 Optometric/Ophthalmic Assisting II — 3 credits
The student will be able to understand pharmacology, eye pathology and emergency eye care, perform diagnostic tests, work with vision therapy patients, contact lenses and contact lens patients, low vision patients, understand the optometric eye examination, and work with the patient in a professional manner.

Lecture hours: 48
Lab/Clinic hours: 0

Prerequisite(s): OPT101 Optometric / Ophthalmic Assisting I and OPT102 Optometric/Ophthalmic Assisting I Lab

Course Fee: $31.00

Prior to Fall 2006 the course number was OA103U

OPT104 Optometric/Ophthalmic Assistant II Lab — 3 credits
The knowledge and concepts of OPT-103 Optometric/Ophthalmic Assisting II are applied in hands on demonstration. Practice and competency test outs.

Lecture hours: 0
Lab/Clinic hours: 96

Prerequisite(s): OPT101 Optometric / Ophthalmic Assisting I and OPT102 Optometric/Ophthalmic Assisting I Lab

Course Fee: $31.00

Prior to Fall 2006 the course number was OA104U

OPT107 Optometric/Ophthalmic Assisting Advanced Pre-testing — 3 credits
This course prepares the student for assisting the professional ophthalmologist. The medical eye exam, instruments, procedures, charting documentation, refracting, and assisting with in office surgery is studied.

Lecture hours: 48
Lab/Clinic hours: 0

Prerequisite(s): OPT101 Optometric/Ophthalmic Assisting I and OPT102 Optometric/Ophthalmic Assisting I Lab

Co-requisite(s): OPT103 Optometric/Ophthalmic Assisting II and OPT104 Optometric/Ophthalmic Assistant II Lab

Course Fee: $31.00

Prior to Fall 2006 the course number was OA107U

OPT108 Optometric/Ophthalmic Assisting Advanced Pre-testing Lab — 3 credits
This course prepares the student for assisting the professional ophthalmologist. The medical eye exam, instruments, procedures, charting documentation, refracting, and assisting with in office surgery is studied.

Lecture hours: 0
Lab/Clinic hours: 96

Prerequisite(s): OPT101 Optometric / Ophthalmic Assisting I and OPT102 Optometric/Ophthalmic Assisting I Lab

Co-requisite(s): OPT103 Optometric/Ophthalmic Assisting II and OPT104 Optometric/Ophthalmic Assistant II Lab

Course Fee: $31.00

Prior to Fall 2006 the course number was OA108U

OPT932 Internship — 3 credits
This internship prepares the student for assisting the professional optometrist or ophthalmologist. The knowledge, skills, and attitudes learned over the course of the school year are put into practice in the ophthalmic clinical setting. This internship must be completed within nine months of the completion of the prerequisites for this course.

Lecture hours: 0
Lab/Clinic hours: 0
Co-op Hours: 192

Prerequisite(s): OPT101 Optometric/Ophthalmic Assisting I , OPT102 Optometric/Ophthalmic Assisting I Lab, OPT103 Optometric/Ophthalmic Assisting II, OPT104 Optometric/Ophthalmic Assistant II Lab, OPT107 Optometric/Ophthalmic Assisting Advanced Pre-testing, and OPT108 Optometric/Ophthalmic Assisting Advanced Pre-testing Lab

Other Requirements: This six week internship must be completed within nine months of the completion of the prerequisites listed above.

Course Fee:

Prior to Fall 2006 the course number was OA109U, OA113U

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: 0

Prerequisite(s): Acceptance into Phase 2 of Occupational Therapy Assistant program.

Course Fee:

OTA102 Human Movement & 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 & 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: 0

Prerequisite(s): Admission to Phase II of the Occupational Therapy Assistant program.

Course Fee:

OTA202 Pediatric Occupational Therapy Assistant 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:

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:

OTA301 Adult Conditions & Occupation — 4 credits
The second in a sequence of courses addressing 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: 0

Prerequisite(s): A minimum grade of "C" in OTA201 Pediatrics & Occupation.

Course Fee:

OTA302 Physical Occupational Therapy Assistant 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:

OTA303 Psychosocial Occupational Therapy Assistant 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 & 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: 0

Prerequisite(s): A minimum grade of "C" in OTA201 Pediatrics & Occupation.

Course Fee:

OTA402 Occupational Therapy Assistant 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 Occupational Therapy Assistant — 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: 0

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 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.

Lecture hours: 0
Lab/Clinic hours: 0
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.

Lecture hours: 0
Lab/Clinic hours: 0
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 lifetime leisure activity of bicycling. Bicycling can be considered a leisure activity as well as a great source of physical fitness. Students will learn bike fundamentals and safety as well as 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. This will be a fundamental course, teaching the basics of the game from scoring to the actual playing. The course will culminate with a fun tournament for students.

Lecture hours: 0
Lab/Clinic hours: 32

Course Fee: $80.00

Prior to Fall 2006 the course number was PE105T

PEA119 Step & 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.

Lecture hours: 0
Lab/Clinic hours: 32

Course Fee: $100.00

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: $85.00

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

Course Fee:

Prior to Fall 2006 the course number was PE106T

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

Prior to Fall 2006 the course number was PE109T

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

Prior to Fall 2006 the course number was PE108T

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:

Prior to Fall 2006 the course number was PE103T

PEA191 Pilates — 1 credits
This skill activity 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: 0

Course Fee:

Prior to Fall 2006 the course number was PE115T

PEA193 Resit-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

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: 0

Course Fee:

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:

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:

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:

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:

Prior to Fall 2006 the course number was PE100T

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: 0

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: 0

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. Hypothetical case studies are drawn from government, journalism, medicine, law, business, military, scientific research, and personal 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: 0

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: 0

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

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 emphasizes amateur observation techniques. Some simple mathematics will be used. Knowledge of basic algebra and trigonometry is suggested.

Lecture hours: 48
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was PS115T, PS190T

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: 0

Course Fee:

PHT101 Analog Fundamentals of Photography — 6 credits

This course is an introduction to the basics of camera handling, exposure and meter usage, processing black & white film and paper, and safety in the lab. Emphasis is placed on the proper exposure and the darkroom techniques necessary to produce a professional print. The history of photography, the people, countries, and processes which developed into the present state of the art will be studied.

Lecture hours: 64
Lab/Clinic hours: 64

Course Fee: $84.00

Prior to Fall 2006 the course number was PO101U

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: $83.00

Prior to Fall 2006 the course number was PO102U

PHT103 Print Presentation Techniques — 3 credits

This course emphasizes fundamental print finishing methods used in professional photography. The course provides experience in corrective artwork and finishing methods used to enhance a photograph's overall presentation.

Lecture hours: 32
Lab/Clinic hours: 48

Course Fee: $77.00

Prior to Fall 2006 the course number was PO103U

PHT106 Introduction to Electronic Imaging — 3 credits

This course will provide a basic introduction to electronic imaging. The course is designed to provide students with a workable understanding of electronic images and digital software.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee: $46.00

Prior to Fall 2006 the course number was PO106U

PHT131 Basic Color Negatives and Prints — 3 credits

This course explores the process of exposing and printing color negatives and color "C" materials. Color negative films, development processes, and color printing techniques are applied to make quality analog color print images. Scanning color negative films, making image adjustments, and digital output onto color "C" materials will also be applied.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): PHT101 Analog Fundamentals of Photography or equivalent experience

Course Fee: $57.00

Prior to Fall 2006 the course number was PO131U

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 color attributes, color contrasts, and color harmonies.

Lecture hours: 32
Lab/Clinic hours: 48

Prerequisite(s): PHT102 Photo Design I

Course Fee: $39.00

Prior to Fall 2006 the course number was PO132U

PHT134 Theory of Photography — 3 credits
This course will provide students with a fundamental understanding of photographic theory. Extensively covered in this course will be image management, photo sensitive films and papers, and exposure techniques. Both black and white and color materials will be studied.

Lecture hours: 32
Lab/Clinic hours: 48

Prerequisite(s): PHT101 Analog Fundamentals of Photography

Course Fee: $36.00

Prior to Fall 2006 the course number was PO134U

PHT135 Digital Fundamentals — 3 credits
This course will provide an introduction to the basics of digital photography, camera handling, digital exposure, and workflow. Emphasis is on how to handle image workflow to produce a professional photographic print from digital files.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): PHT101 Analog Fundamentals of Photography

Course Fee: $49.00

Prior to Fall 2006 the course number was PO135U

PHT202 Basic Portraiture — 3 credits
This course presents an overview of the professional portrait field. The course will include instruction on studio equipment and basic lighting patterns utilizing natural light and studio lighting. Traditional posing and essential elements required to ensure client satisfaction will be emphasized.

Lecture hours: 32
Lab/Clinic hours: 48

Prerequisite(s): PHT101 Analog Fundamentals of Photography and PHT-134 Theory of Photography

Course Fee: $51.00

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

Course Fee: $51.00

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 using 35mm format cameras. The techniques and working style of outstanding photojournalists are presented in multi-image programs.

Lecture hours: 32
Lab/Clinic hours: 48

Prerequisite(s): PHT101 Analog Fundamentals of Photography

Course Fee: $40.00

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: $99.00

Prior to Fall 2006 the course number was PO210U

PHT212 Intermediate Electronic Imaging — 3 credits
This course will develop skills needed for adjusting and enhancing photographic images after image capture and before going to a final output. The emphasis will be on images used in the photography professions of Portrait, Commercial, and Photojournalism. All image manipulations will be accomplished with computer imaging software.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): PHT106 Introduction to Electronic Imaging

Course Fee: $40.00

Prior to Fall 2006 the course number was PO212U

PHT232 Advanced Portraiture — 6 credits
This course is designed to assist the student in learning advanced portrait techniques and the business procedures needed to start and maintain a portrait studio. The course should create an awareness of the work environment the student will enter as an assistant. The course builds on the skills learned in PHT-202 Basic Portraiture and will include various portrait assignments in the studio, out-doors, and on location. A portfolio presentation is required upon completion.

Lecture hours: 48
Lab/Clinic hours: 144

Prerequisite(s): PHT202 Basic Portraiture

Course Fee: $134.00

Prior to Fall 2006 the course number was PO232U

PHT234 Advanced Commercial — 6 credits
Advanced commercial photography builds on the skills learned in PHT-204 Basic Commercial Photography. The course studies studio and location commercial photography techniques with an emphasis on advertising photography. Studio operation procedures related to pricing, work flow, and scheduling are presented. A portfolio presentation is required upon completion.

Lecture hours: 48
Lab/Clinic hours: 144

Prerequisite(s): PHT204 Basic Commercial Photography

Course Fee: $51.00

Prior to Fall 2006 the course number was PO234U

PHT235 Techniques for Studio Promotion — 3 credits
This course emphasizes fundamental promotional methods used in professional photography studios. This course provides exposure to the various advertising campaigns recognized as viable marketing methods to promote the studio and raise public awareness.

Lecture hours: 32
Lab/Clinic hours: 48

Prerequisite(s): PHT202 Basic Portraiture

Course Fee: $55.00

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 its 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. In addition, the medium's future will also be examined.

Lecture hours: 32
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was PO237U

PHT238 Advanced Photojournalism — 6 credits
Advanced photojournalism work prepares students to find employment with newspapers and/or magazines. The course includes layout work, writing, and participation in statewide press competition. Portfolio presentation is required upon completion.

Lecture hours: 48
Lab/Clinic hours: 144

Prerequisite(s): PHT208 Basic Photojournalism

Course Fee: $122.00

Prior to Fall 2006 the course number was PO238U

PHT242 Advanced 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

Prerequisite(s): PHT210 Visual Communication

Course Fee: $39.00

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 work for a photographer in the wedding field.

Lecture hours: 32
Lab/Clinic hours: 64

Prerequisite(s): PHT202 Basic Portraiture

Course Fee: $24.00

Prior to Fall 2006 the course number was PO244U

PHT246 Advanced Electronic Imaging — 3 credits
This course will develop skills needed for enhancing photographic images beyond the confines of traditional manipulation. The emphasis will be on transforming standard photographic images into fine art, using a combination of Photoshop and Corel Painter software.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): PHT212 Intermediate Electronic Imaging

Course Fee: $39.00

Prior to Fall 2006 the course number was PO246U

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

Course Fee: $25.00

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, sounds, temperature, and heat. A working knowledge of trigonometry is strongly suggested.

Lecture hours: 48

Lab/Clinic hours: 32

Prerequisite(s): MAT122 College Algebra

Course Fee: $27.00

Prior to Fall 2006 the course number was PH110T

PHY172 College Physics II — 4 credits
This course is the second semester continuation of PHY-162 College 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): PHY162 College Physics I

Course Fee: $27.00

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 covers the fundamental concepts, principles, and laws of physics and their applications. It covers kinematics, dynamics, force, linear and rotational motion, fluids, sounds, temperature and heat. This course employs calculus-based techniques for studying physics.

Lecture hours: 64
Lab/Clinic hours: 32

Prerequisite(s): MAT216 Calculus II

Course Fee: $27.00

Prior to Fall 2006 the course number was PH112T

PHY222 Classical Physics II — 5 credits
This course is the second semester continuation of PHY-212 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): PHY212 Classical Physics I

Course Fee: $27.00

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: 0

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: $52.00

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: $40.00

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: $195.00

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: 0

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: 0

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

PNN341 Nursing Practicum — 1 credits
This course provides students with experiences and opportunities to demonstrate proficiency in performance of skills and application of the nursing process; caring for clients in local health care facilities.

Lecture hours: 0
Lab/Clinic hours: 48

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 PN202U

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: 0

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: 0

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: $80.00

Prior to Fall 2006 the course number was PN200U

PNN433 Maternal - Child Nursing — 3 credits
This course continues the study of the human reproductive process during the maternity cycle, care of the

mother, infant, and growing child in health and illness. The course includes basic principles of family centered nursing, pharmacology applicable to maternal-child care, and clinical experience in local hospitals and clinics.

Lecture hours: 32
Lab/Clinic hours: 48

Prerequisite(s): PNN-270 Introduction to Nutrition, PNN-161 Introduction to Client Care, PNN-132 Nursing Fundamentals I, PNN-133 Nursing Fundamentals II, PNN-103 Nursing Calculations, BIO-159 Fundamentals of Anatomy & Physiology, PSY-111 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 PN155U

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

POL111 American National Government — 3 credits
This course is a study of American 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: 0

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: 0

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: 0

Course Fee:

Prior to Fall 2006 the course number was SS154T

PSY102 Human & 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: 0

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: 0

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: 0

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: 0

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: 0

Prerequisite(s): PSY111 Introduction to Psychology, SOC110 Introduction to Sociology

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: 0

Course Fee:

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: 0

Prerequisite(s): PSY111 Introduction to Psychology

Course Fee:

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.

Lecture hours: 16
Lab/Clinic hours: 0

Prerequisite(s): Instructor approval, must be admitted to Honors Program, and completion of Learning Contract.

Course Fee:

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: 48
Lab/Clinic hours: 0

Prerequisite(s): Instructor approval and must be admitted to Honors Program.

Course Fee:

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: 0

Prerequisite(s): Acceptance into Phase II of the Physical Therapist Assistant program.

Course Fee:

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.

Course Fee:

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: 0

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, ydrotherapy, and phonophoresis.

Lecture hours: 32
Lab/Clinic hours: 32

Prerequisite(s): Acceptance into Phase II of the Physical Therapist Assistant program.

Course Fee:

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: 0

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; HIPPA, 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:

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.

Lecture hours: 0
Lab/Clinic hours: 0
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:

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.

Lecture hours: 0
Lab/Clinic hours: 0
Co-op Hours: 320

Prerequisite(s): PTA415 PTA Clinical III.

Course Fee:

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 that are important to providers. It will establish a strong foundation in bedside assessment including determining vital signs, evaluating work of breathing, and taking a patient history. Also covered will be the therapeutic uses of medical gases, infection control procedures, and proper maintenance of records.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee: $33.00

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: $63.00

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: $69.00

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: $33.00

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.

Lecture hours: 32
Lab/Clinic hours: 32

Course Fee: $45.00

Prior to Fall 2006 the course number was RT244U

RCP550 Respiratory Failure — 1 credits
This course involves the identification of actual or impending respiratory failure of the cardiopulmonary system. It includes the drawing, analysis, and interpretation of blood for blood gases.

Lecture hours: 16
Lab/Clinic hours: 0

Prerequisite(s): RCP315 Cardiopulmonary Therapeutics

Course Fee:

Prior to Fall 2006 the course number was RT201U

RCP560 Introduction to Ventilator Support — 2 credits
This course prepares the student to initiate mechanical ventilation. The different classifications and operating modes of ventilators will be discussed. Also studied are the principles of mechanical ventilation and the effects of positive pressure on the entire body.

Lecture hours: 16
Lab/Clinic hours: 32

Prerequisite(s): RCP100 Introduction to Respiratory Care

Course Fee: $53.00

Prior to Fall 2006 the course number was RT206U

RCP561 Introduction to Ventilator Support — 3 credits
This course prepares the student to initiate and manage invasive and noninvasive mechanical ventilation. Operating modes of ventilation, including settings and alarms, will be discussed. Also studied are the principles of mechanical ventilation and the effects of positive pressure on the body.

Lecture hours: 16
Lab/Clinic hours: 64

Prerequisite(s): RCP100 Intro to Respiratory Care, RCP260 Airway Maintenance Procedures

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: $183.00

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: $233.00

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 ventilators and hemodynamically unstable patients. There will be a specialty rotation at a teaching hospital to develop awareness of the many aspects of neonatal, pediatric, and adult ICUs, and other special procedures.

Lecture hours: 0
Lab/Clinic hours: 384

Prerequisite(s): RCP680 Clinical Respiratory Care and RCP560 Introduction to Ventilator Support

Course Fee: $506.00

RCP775 Introduction to Clinical Therapy — 3 credits
This course covers the rationale and administration techniques involved in providing medical gas, humidity therapy, and aerosol therapy to patients in a clinical setting, the operation of associated equipment, and the monitoring of patients receiving therapy.

Lecture hours: 32
Lab/Clinic hours: 48

Course Fee:

Prior to Fall 2006 the course number was RT105U

RCP785 Clinical Care of Acute Patients II — 2 credits
This course is a continuation of the clinical sequence. It offers clinical experience for the students in continuing to develop the skills introduced in previous Respiratory Care courses, in developing patient assessment skills, and an introduction to intensive care.

Lecture hours: 0
Lab/Clinic hours: 96

Prerequisite(s): RCP100 Introduction to Respiratory Care, RCP315 Cardiopulmonary Therapeutics, and RCP260 Airway Maintenance Procedures

Course Fee:

Prior to Fall 2006 the course number was RT204U

RCP795 Clinical Specialties of Respiratory Care — 8 credits
This course is a summary clinical course of the Respiratory Care program. In addition to time spent in acute and intensive areas this course also includes rotations through sub-acute and diagnostic areas. Students are expected to be able to function with minimal supervision an all areas of respiratory care and to practice those skills expected of a respiratory care practitioner.

Lecture hours: 0
Lab/Clinic hours: 384

Prerequisite(s): RCP565 Intensive Respiratory Care and RCP410 Cardiopulmonary Diagnostics

Course Fee:

Prior to Fall 2006 the course number was RT245U

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): RCP100 Introduction to Respiratory Care, RCP260 Airway Maintenance Procedures, RCP315 Cardiopulmonary Therapeutics, RCP560 Introduction to Ventilator Support, and RCP630 Pediatric/Neonatal Respiratory Care

Course Fee: $203.00

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: 0
Co-op Hours: 256

Prerequisite(s): RCP680 Clinical Respiratory Care and RCP690 Clinical Intensive Care

Course Fee: $36.00

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: 0

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: 0

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: 0

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: 0

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: 0

Course Fee:

RNF210 RN First Assistant — 3 credits

This course is designed to present concepts and techniques necessary to assume the role and responsibilities necessary for the RN First Assistant. The content of the course presents the collaborative and interdependent relationships of the surgeon-physician, nurse, client, and client's family. The nursing diagnosis is used as the basis for planning and implementing patient care. The expanded functions of the RN

First Assistant are stressed.

Lecture hours: 48
Lab/Clinic hours: 08

Other Requirements: Four years current or experience as a RN and/or CNOR and acceptance to the program.

Course Fee:

Prior to Fall 2006 the course number was RN210U

RNF932 RN First Assistant Clinical Internship — 3 credits
This course is designed to provide clinical learning experiences as developed in the individual student learning contract for the perioperative nurse to function in the RN First Assistant role. This internship course must be completed according to student contract with the program.

Lecture hours: 0
Lab/Clinic hours: 144

Course Fee:

Prior to Fall 2006 the course number was RN215U

SDV025 College Study Skills — 3 credits
This course provides students with the opportunity to improve their chances for success in college by introducing students to reading and study strategies appropriate for college-level textbooks and classroom experiences. More important, it provides students with the opportunity to put these strategies into practice.

Lecture hours: 48
Lab/Clinic hours: 0

Prerequisite(s): RDG039 College Preparatory Reading II, appropriate placement scores, or equivalent

Course Fee:

Prior to Fall 2006 the course number was SC024D

SDV026 Introduction to E-Learning — 2 credits
This course provides students with the basic technology skills needed to become successful online learners, such as file management, attaching documents to email, posting to discussion boards, and an overview of how to navigate an online or hybrid course. It also gives them practical experience as an online learner by using a Course Management System. This course prepares students to be successful in the online environment.

Lecture hours: 16
Lab/Clinic hours: 32

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: 0

Course Fee:

SDV113 Strategies for Academic Success — 2 credits
This course introduces incoming students to the college culture and imparts strategies and attitudes of successful college students. Presented in four modules, the course incorporates educational and career planning and goal setting, study skills, personal development, and an introduction to college life. The content presented is meant to be a starting point for students to continue to develop characteristics of master, life-long learners. Course content may vary based on individual course format.

Lecture hours: 32
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was IY100T

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: 0

Course Fee:

SDV122 Freshman Seminar — 2 credits
This course introduces students to college life. Emphasis is on the individual attitudes and skills that promote success in college as well as introducing the student to social attitudes and skills that support learning success within a community of learners. Credit cannot be received for both SDV-122 Freshman Seminar and SDV-113 Strategies for Academic Success.

Lecture hours: 32
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was IY112T

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.

Lecture hours: 16
Lab/Clinic hours: 0

Course Fee:

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: 0

Course Fee:

Prior to Fall 2006 the course number was IY102T

SDV151 Leadership Training and Skill Development — 3 credits

This course focuses on the preparation of students to assume increasingly responsible leadership roles in their personal, professional, and academic lives. It integrates theory and application in developing leadership ability through the study of leadership styles, skills, roles, and functions of organizations. Honor Student or Phi Theta Kappa membership is encouraged.

Lecture hours: 48
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was HR201T

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: 0

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 the range of sociological explanations of various forms of social behavior and establishes a basis for further study in the field.

Lecture hours: 48
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was SO100T, SO190T

SOC115 Social Problems — 3 credits

Contemporary issues are critically examined from a sociological perspective. The origins and development of major issues are considered as well as interventions attempting to resolve these issues.

Lecture hours: 48
Lab/Clinic hours: 0

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 family.

Lecture hours: 48
Lab/Clinic hours: 0

Course Fee:

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: 0

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: 0

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: 0

Prerequisite(s): HIS152 U.S. History Since 1877 or SOC110 Introduction to Sociology or SOC115 Social Problems or HIS155 American Civilization 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: 0

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: 0

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: 0

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: 0

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: 0

Course Fee:

Prior to Fall 2006 the course number was SO106T

SOC240 Intro 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: 0

Course Fee:

Prior to Fall 2006 the course number was SO104T

SOC251 Intro 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: 0

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: 0

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: 0

Course Fee:

SOC850 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

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: 0

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: 0

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: 0

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: 0

Prerequisite(s): SPC101 Fundamentals of Oral Communication

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: 0

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: 0

Course Fee:

Prior to Fall 2006 the course number was CM134T

STR159 Structural Detailing — 2 credits
This course uses board and computer techniques to prepare highway structures drawings which include structural timber, structural steel, and reinforced concrete. Course includes the preparation of bar bend details, reinforcing bar lists, and quantity calculations. Topics from the Department of Transportation Specifications are covered.

Lecture hours: 0
Lab/Clinic hours: 96

Prerequisite(s): CAD111 AutoCAD I

Course Fee:

Prior to Fall 2006 the course number was CE136U

SUR126 Surgical Technology I (KCC) — 7 credits
Provides an introduction to the knowledge and skills required for Surgical Technologists. For more information contact Kirkwood Community College.

Lecture hours: 72
Lab/Clinic hours: 64

Course Fee:

SUR225 Surgical Technology II (KCC) — 4 credits
Provides basic case preparation and surgical procedures necessary to begin operating room experience. For more information contact Kirkwood Community College.

Lecture hours: 48
Lab/Clinic hours: 32

Prerequisite(s): BIO161 Basic Anatomy and Physiology, SUR126 Surgical Technology I

Course Fee:

SUR340 Surgical Specialties (KCC) — 4 credits
Provides information on each of the surgical specialties that may be experienced in the operating room. For more information contact Kirkwood Community College.

Lecture hours: 64
Lab/Clinic hours: 0

Co-requisite(s): SUR225 Surgical Technology II, SUR-520 Surgical Technology Practicum I

Course Fee:

SUR421 Surgical Technology Pharmacology (KCC) — 1 credits
Provides information needed to calculate and handle drugs in the operating room. Provides an overview of the administration and general practice of anesthesia in surgery. For more information contact Kirkwood Community College.

Lecture hours: 16
Lab/Clinic hours: 0

Co-requisite(s): SUR340 Surgical Specialties

Course Fee:

SUR440 Biomedical Sciences for the Surgical Technologist (KCC) — 2 credits
Provides a broad base of knowledge for entry-level surgical technologists. Focuses on computers, electricity, physics, robotics and other fundamental technologies essential to the profession. For more information

contact Kirkwood Community College.

Lecture hours: 32
Lab/Clinic hours: 0

Prerequisite(s): SUR126 Surgical Technology I

Co-requisite(s): SUR225 Sugrical Technology II

Course Fee:

SUR520 Surgical Technology Practicum I (KCC) — 2 credits
Provides hands-on, first-level clinical experience in the operating room. For more information contact Kirkwood Community College.

Lecture hours: 0
Lab/Clinic hours: 96

Prerequisite(s): HSC210 Health Skills I, HSC211 Health Skills II, SUR126 Surgical Technology I, SUR225 Surgical Technology II

Course Fee:

SUR523 Surgical Technology Practicum II (KCC) — 9 credits
Provides an extensive hands-on clinical experience in all entry-level skills for Surgical Technologists. For more information contact Kirkwood Community College.

Lecture hours: 0
Lab/Clinic hours: 528

Prerequisite(s): SUR520 Surgical Technology Practicum I

Co-requisite(s): SUR340 Surgical Specialties

Course Fee:

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 skills and oral communication. Instruction is provided in employment seeking skills, resumes, letters of application, personal record keeping, and desirable work attitude.

Lecture hours: 32
Lab/Clinic hours: 0

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: 0

Course Fee: $268.00

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:

TDT120 Driving Range I — 4 credits
This course provides students with opportunities for 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. Emphasis is given to proper safety and technical practices.

Lecture hours: 32
Lab/Clinic hours: 96

Course Fee: $523.00

Prior to Fall 2006 the course number was TR102U

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: $516.00

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: $427.00

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: 0

Course Fee: $268.00

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): TDT123 Transportation Industry for Entry-Level Drivers

Course Fee: $1,468.00

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

Course Fee:

Prior to Fall 2006 the course number was TR105U

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: $439.00

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: 0

Course Fee: $74.00

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: 0

Prerequisite(s): WEL111 Welding Blueprint Reading

Course Fee: $66.00

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: $296.00

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: $126.00

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: $638.00

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: $433.00

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: $439.00

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: $467.00

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: $439.00

Prior to Fall 2006 the course number was WL108U

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: $439.00

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: $175.00

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: $188.00

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: $239.00

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: $300.00

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 have been marginalized and silenced primarily by the social definitions and dimensions of gender. The course seeks to help students develop critical thinking relative to contemporary gender issues; to explore their assumptions about gender; to illuminate the social construction of femininity and women's roles; and to uncover the ways in which being female shapes women's lives.

Lecture hours: 48
Lab/Clinic hours: 0

Course Fee:

Prior to Fall 2006 the course number was WS100T

WST277 History of Women in the US — 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: 0

Prerequisite(s): HIS155 American Civilization

Course Fee:

Prior to Fall 2006 the course number was HY240T

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: