HAWKEYE COMMUNITY COLLEGE

# 2023 – 2024 PROGRAM AND COURSE CATALOG

Archived from www.hawkyecollege.edu

July 2023

# Hawkeye Community College Accreditation

## The Higher Learning Commission

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

### 2021 Assurance Review

- Higher Learning Commission Letter:
  - www.hawkeyecollege.edu/webres/File/about/accreditation/higher-learning-commission-letter-2021.pdf
- Higher Learning Commission Final Report
  - www.hawkeyecollege.edu/webres/File/about/accreditation/higher-learning-commission-final-report-2021.pdf
- Assurance Argument
  - www.hawkeyecollege.edu/webres/File/about/accreditation/higher-learning-commission-assurance-argument-2021.pdf

### 2016 Reports

- Comprehensive Quality Review Report
  - www.hawkeyecollege.edu/webres/File/about/accreditation/comprehensive-quality-review-report-2016.pdf
- Systems Portfolio
  - www.hawkeyecollege.edu/webres/File/about/accreditation/systems-portfolio-2016.pdf
- Systems Appraisal Feedback Report
  - www.hawkeyecollege.edu/webres/File/about/accreditation/systems-appraisal-feedback-report-2016.pdf
- Quality Highlights Report — 2016
  - www.hawkeyecollege.edu/webres/File/about/accreditation/quality-highlights-report-2016.pdf
- Federal Compliance Filing by Institutions Form — September 2016
  - www.hawkeyecollege.edu/webres/File/about/accreditation/federal-compliance-9-2016.pdf

### Follow-Up Reports

- Higher Learning Commission Interim Report
  - www.hawkeyecollege.edu/webres/File/about/accreditation/higher-learning-commission-interim-report-2019.pdf
- Higher Learning Commission Interim Report: Staff Analysis of Institutional Report
  - www.hawkeyecollege.edu/webres/File/about/accreditation/higher-learning-commission-interim-report-staff-analysis-of-institutional-report-2019.pdf

### Additional Locations

- Change Panels Action Letter June 7, 2019
  - www.hawkeyecollege.edu/webres/File/about/accreditation/change-panels-action-letter-06-07-2019.pdf
- Additional Location Confirmation Report Form letter — November 2011
  - www.hawkeyecollege.edu/webres/File/about/accreditation/additional-location-confirmation-visit-report-form-letter-2011.pdf

# Iowa Department of Education

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

## Comprehensive Accreditation Visit, 2020

- 2020 Approval Letter
  - www.hawkeyecollege.edu/webres/File/about/accreditation/IDOE-comprehensive-accreditation-visit-approval-letter.pdf
- 2020 Visit Report
  - www.hawkeyecollege.edu/webres/File/about/accreditation/IDOE-comprehensive-accreditation-visit-report.pdf

## Interim Accreditation Visit, 2015

- 2015 Approval Letter
  - www.hawkeyecollege.edu/webres/File/about/accreditation/Iowa-doe-interim-accreditation-visit-approval-letter.pdf
- 2015 Report
  - www.hawkeyecollege.edu/webres/File/about/accreditation/Iowa-doe-interim-accreditation-visit-report.pdf

# National Alliance of Concurrent Enrollment Partnerships (NACEP)

179 East Franklin Street
PO Box 578
Chapel Hill, NC 27514
919-593-5205
877-572-8693 (fax)

- Certificate of Accreditation — 2019
  - www.hawkeyecollege.edu/webres/File/about/accreditation/NACEP-certificate-2019.pdf
- Accreditation Letter — 2019
  - www.hawkeyecollege.edu/webres/File/about/accreditation/NACEP-accreditation-letter-2019.pdf
- Accreditation Commission Findings — 2019
  - www.hawkeyecollege.edu/webres/File/about/accreditation/NACEP-accreditation-commission-findings-2019.pdf

# Individual programs are recognized as follows:

## Dental Assisting and Dental Hygiene

Accredited by the Commission on Dental Accreditation
American Dental Association
211 East Chicago Ave.
PO Box 1900
Chicago, IL 60611
www.ada.org/en/coda

## Emergency Medical Services

Accredited by the Commission on Accreditation of Allied Health Education Programs
9355 - 113th St. N, #7709
Seminole, FL 33775
727-210-2350
www.caahep.org

Accredited by Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions
8301 Lakeview Parkway, Suite 111-312
Rowlett TX 75088
214-703-8445
214-703-8992 (fax)
www.coaemsp.org

Iowa Department of Public Health
Lucas State Office Building
321 E. 12th Street
Des Moines, IA 50319-0075
515-281-7689
idph.iowa.gov

## Landscape and Turf Management

Accredited by the National Association of Landscape Professionals
12500 Fair Lakes Circle, Suite 200
Fairfax, VA 22033
800-395-2522
www.landscapeprofessionals.org/nalp/nalp/membership/accredited-schools.aspx

## Medical Assistant

The Hawkeye Community College Medical Assistant program is accredited by the Commission on Accreditation of Allied Health Education Programs upon the recommendation of Medical Assisting Education Review Board (MAERB).

Commission on Accreditation of Allied Health Education Programs
25400 US Highway 19 North, Suite 158
Clearwater, FL 33763
727-210-2350
www.caahep.org

## Medical Laboratory Technology

Accredited by the National Accrediting Agency for Clinical Laboratory Sciences
5600 N River Rd. STE 720
Rosemont, IL 60018-5119
www.naacls.org/Find-a-Program.aspx?state=Iowa&program=MLT

## Natural Resource Management

North American Wildlife Technology Association
Jennifer Lee
Forestry, Wildlife, and Natural Resources Program
Front Range Community College

4616 S Shields St
Fort Collins, CO 80526 USA
jennifer.lee@frontrange.edu
970-204-8253

## Occupational Therapy Assistant

Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA)

6116 Executive Boulevard, Suite 200
North Bethesda, MD 20852-4929
301-652-2682
www.acoteonline.org

## Physical Therapist Assistant Program

The Physical Therapist Assistant program at Hawkeye Community College is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE), 111 North Fairfax Street, Alexandria, Virginia 22314; telephone: 703-706-3245; email: accreditation@apta.org; website: www.capteonline.org.

## Practical Nursing and Associate Degree Nursing

Approved by the Iowa Board of Nursing
400 S.W. 8th Street
Suite B
Des Moines, IA 50309
nursing.iowa.gov/lpnadn-nursing-education-programs

## Respiratory Care

Accredited by the Commission on Accreditation for Respiratory Care
264 Precision Blvd
Telford, TN 37690
817-283-2835
coarc.com

# Equal Opportunity

Hawkeye Community College is committed to maintaining an educational and work environment in which students, faculty, and staff can work together in an atmosphere free of discrimination, harassment, exploitation, or intimidation.

Hawkeye Community College is an equal opportunity and affirmative action employer, committed to equity and diversity in its educational services and employment practices.

## Nondiscrimination Statement

Hawkeye Community College does not discriminate on the basis of sex; race; age; color; creed; national origin; religion; disability; sexual orientation; gender identity; genetic information; political affiliation; or actual or potential parental, family, or marital status in its programs, activities, or employment practices. Veteran status is also included to the extent covered by law. Any person alleging a violation of equity regulations shall have the right to file a formal complaint. Inquiries concerning application of this statement should be addressed to: Equity Coordinator and Title IX Coordinator for employees, 319-296-4405; or Title IX Coordinator for students, 319-296-4448; Hawkeye Community College, 1501 East Orange Road, P.O. Box 8015, Waterloo, Iowa 50704-8015; or email equity-titleIX@hawkeyecollege.edu, or the Director of the Office for Civil Rights U.S. Department of Education, John C. Kluczynski Federal Building, 230 S. Dearborn Street, 37th Floor, Chicago, IL 60604-7204, Telephone: 312-730-1560 Facsimile: 312-730-1576, TDD 800-877-8339 Email: OCR.Chicago@ed.gov.

### Annual Notice of Nondiscrimination

The College gives notice of our nondiscrimination policies and practices to it's stakeholders every year in July. The Hawkeye Community College Nondiscrimination Statement applies to all programs and services offered including all Career and Technical Education Programs and Liberal Arts AA and AS Degree Programs. See the Annual Notice of Nondiscrimination at www.hawkeyecollege.edu/articles/news/annual-notice-of-nondiscrimination-2022.

## Affirmative Action Plan

Hawkeye Community College has established and implemented an Affirmative Action Plan to reflect its ethical and legal pledge to comply with laws and regulations requiring Equal Educational Opportunity, Equal Employment Opportunity, and Affirmative Action.

www.hawkeyecollege.edu/about/diversity-inclusion/equal-opportunity/affirmative-action-plan

## Educational Equity Statement

Hawkeye Community College is committed to equity and diversity in educational services and employment practices.

College curriculum, programs, and services will promote respect and appreciation for cultural diversity and inclusion with an awareness of the rights and responsibilities of individuals as members of a global society.

College employees have a responsibility to contribute to an environment for learning and working that encourages and enhances the valuing of equity, enthusiasm for diversity, and passion for respectful interaction.

Hawkeye Community College is committed to maintaining an educational and work environment in which students, faculty, and staff can work together in an atmosphere free of discrimination, harassment, exploitation, or intimidation.

Hawkeye Community College has developed and implemented an Affirmative Action Plan to demonstrate an ethical and legal commitment to Equal Employment Opportunity. The Plan is designed to advance the representation and utilization of protected class members and to prevent discrimination. The Plan is periodically reviewed and revised in an evolving process to continually and optimally promote equity in educational services and employment practices at Hawkeye Community College.

Hawkeye Community College does not discriminate on the basis of sex; race; age; color; creed; national origin; religion; disability; marital status; sexual orientation; gender identity; genetic information; political affiliation or belief in its employment practices; educational programs and activities; admission procedures; outreach and recruitment; counseling and guidance; testing; selection, placement, appointment, and referral; or promotion/retention. Veteran status in educational programs, activities, employment practices, or admission procedures is also included to the extent covered by law. In addition, discrimination and/or retaliation of or against an individual because of an association with someone with an aforementioned protected characteristic or for reporting discrimination is also prohibited. Prohibited forms of sex-based discrimination include sexual harassment, sexual assault, and sexual exploitation, as well as domestic violence, dating violence, and stalking.

Any person has the right to file a complaint alleging non-compliance by Hawkeye Community College with College, State, or Federal policies or regulations requiring non-discrimination in educational services and employment.

## Inquiries or complaints related to this Educational Equity Statement may be made to:

Equity coordinator and Title IX coordinator for employees, Hawkeye Community College 1501 East Orange Road, Waterloo, IA 50701, 319-296-4405 or 800-670-4769, ext. 4405

Title IX coordinator for students, Hawkeye Community College, 1501 East Orange Road, Waterloo, IA 50701, 319-296-4448, or 800-670-4769, ext. 4448

# FACULTY CREDENTIALS

ADAMSON, TIMOTHY L., Near Eastern Languages. BA, UNIV CHICAGO; Philosophy . MTS, WESLEY

ADOLPHS, GLEN D., Ag Power Technology. AAS, HAWKEYE COMMUNITY COLLEGE; Diesel Truck

ANDREWS, ADRIANNE E., . BA, UNIVERSITY NORTHERN IOWA

ASCHBRENNER, RENEE G., Mathematics . BS, LORAS COLLEGE; Mathematics . MA, UNIVERSITY

BARTLETT, CASSADY A., Biology . BA, UNIVERSITY NORTHERN IOWA; Physical Therapist Assistant.

BATES, JENNIFER L., Art & Design. BFA, IOWA STATE UNIVERSITY; Fine Arts. MFA, PRATT

BENGEN, TODD A., Electronics Engineering Tech. AAS, HAWKEYE COMMUNITY COLLEGE

BLYTHE, BRENT J., Tool Die Making. AAS, HAWKEYE COMMUNITY COLLEGE

BOEVERS, AMY S., English . BA, UNIVERSITY NORTHERN IOWA; English . MA, UNIVERSITY

BREHM, JENNIFER L., Accounting. BA, UNIVERSITY NORTHERN IOWA; Business Administration.

BUSS, SHARON K., Administrative Assistant. AAS, KIRKWOOD COMMUNITY COLLEGE; Management. BS, UPPER IOWA UNIVERSITY; PostSecndry Ed Std Affairs. MAE, UNIVERSITY

BUTE, JAMIE S., Business Administration. MBA, UNIVERSITY NORTHERN IOWA; Liberal Arts. AA, HAWKEYE COMMUNITY COLLEGE; Psychology . BA, UNIVERSITY NORTHERN IOWA; Respiratory Care. AAS, HAWKEYE COMMUNITY COLLEGE; Respiratory Care. BS, CALIFORNIA SCHOOL

CHAMBERLAIN, JON R., Liberal Arts. AA, HAWKEYE COMMUNITY COLLEGE

CIEPIELA, TRACI C., Broadcasting. BA, SUNY COLL BUFFALO; Criminal Justice. ABD, CAPELLA UNIVERSITY; Criminal Justice. MS, COLUMBIA COLLEGE COLUMBIA

CLAPP, ADAM L., Applied Politics. MAP, UNIV AKRON; History . BA, UNIVERSITY FINDLAY; Political

CLARK, CRAIG J., Construction Technology. AAS, KIRKWOOD COMMUNITY COLLEGE; Management.

CLEVELAND, OLE S., . AA, WALDORF UNIVERSITY; Ag Education . BS, IOWA STATE UNIVERSITY

COCKRELL, JOHNATHAN R., Adult Education. MED, COLORADO STATE UNIVERSITY; Paramedic Specialist. AAS, SOUTHEASTERN COMMUNITY COLLEGE; Social Science . BA, UNIVERSITY

CORKERY, BONNIE J., . MSN, WESTERN GOVERNORS UNIVERSITY; Associate Degree Nursing. AAS, HAWKEYE COMMUNITY COLLEGE; Practical Nursing. DIPL, HAWKEYE COMMUNITY

COSTA, BRUCE P., Soviet and East European Studi. MA, UNIVERSITY KANSAS

COURTNEY, RYAN F., Comm Studies . BA, UNIVERSITY NORTHERN IOWA; Comm Studies . MA,

CRAMER, STEWART N., Music . DA, UNIVERSITY NORTHERN COLORADO

CROWE - RUBINO, PATRICIA A., Psychology . BA, UNIVERSITY NORTHERN IOWA; Psychology . MA,

CULPEPPER, TERESA A., Associate Degree Nursing. AAS, HAWKEYE COMMUNITY COLLEGE; Liberal Arts. AA, HAWKEYE COMMUNITY COLLEGE; Nursing . BSN, ALLEN COLLEGE; Nursing . MSN, ALLEN COLLEGE; Nursing Assisting. CERT, HAWKEYE COMMUNITY COLLEGE; Practical

DEAN, CHAD R., . CERT, PURDUE UNIVERSITY GLOBAL (KAPLAN UNIVERSITY); Aviation Maintenance. AAS, HAWKEYE COMMUNITY COLLEGE; Information Systems Mgmt. BS, PURDUE

DOBSON, JILL J., Comm & Training Technology. MA, UNIVERSITY NORTHERN IOWA; Individual

ECKHEART, ASHLEY L., Hospitality Management. AAS, NORTH IOWA AREA COMMUNITY COLLEGE

EINFELT, KASSANDRA K., Biology . BS, UNIVERSITY NORTHERN IOWA; Biology . MA, UNIVERSITY NORTHERN IOWA; General Studies. AA, HAWKEYE COMMUNITY COLLEGE; Nursing Assisting.

EVANS, SIERRA R., Advanced Manufacturing Welding. DIPL, HAWKEYE COMMUNITY COLLEGE; Intermed Manufacturing Welding. DIPL, HAWKEYE COMMUNITY COLLEGE; Welding. CERT,

EVEN, JANE A., Education . MAE, VITERBO UNIVERSITY; Elementary Education . BA, UNIVERSITY

FRITCH, TRUDY L., Education . BS, UNIVERSITY NEBRASKA-LINCOLN; Mathematics . MA,

FRY, JEREMY L., Mathematics . BA, UNIVERSITY NORTHERN IOWA; Mathematics . MA,

GEER, PATRICK J., Business Ed . MS, EMPORIA STATE UNIVERSITY

GISLESON, KATHRYN A., Dental Hygiene. AAS, HAWKEYE COMMUNITY COLLEGE; Educational Admin. MHEA, UPPER IOWA UNIVERSITY; Human Resource Management. BA, UNIVERSITY

GREIMAN, AMBER M., . BS, IOWA STATE UNIVERSITY

HEATH-SINCLAIR, MARTHA S., Biology . BA, MOUNT MARTY COLLEGE; Genetics . MS, IOWA

HEIMANN, ROXANNE L., . BA, UNIVERSITY NORTHERN IOWA; Comm Studies . MA, UNIVERSITY

HELDT, MITCHELL D., Industrial Education. BS, IOWA STATE UNIVERSITY; Industrial Management.

HELMUTH, GREGORY J., . AAS, KIRKWOOD COMMUNITY COLLEGE; Health Admin. BS, UPPER IOWA UNIVERSITY; Org Mngmt & Leadership. MA, WALDORF UNIVERSITY

HERRING, MICHAEL J., Chiropractic . DC, NORTHWSTRN HEALTH SCI UNIV; Human Biology. BS,

HOLKE-FARNAM, RODNEY C., Mathematics . BS, BRADLEY UNIVERSITY; Mathematics . MS,

HOLKE-FARNAM, CORRINE M., English . BS, ILLINOIS STATE UNIVERSITY; English . MA,

HOLMAN, GINA S., Nursing . BS, ALLEN COLLEGE; Nursing . MSN, ALLEN COLLEGE; Nursing . MSN,

HUNTER, ADAM T., Graphic Design. AAA, HAWKEYE COMMUNITY COLLEGE

JACOBSON, GERROT L., Automotive Technology. AAS, NORTH IOWA AREA COMMUNITY COLLEGE

JANTZEN, JEFFREY D., Intermed Manufacturing Welding. DIPL, HAWKEYE COMMUNITY COLLEGE

JENSEN, DANIEL R., Graphic Design. BFA, IOWA STATE UNIVERSITY

JUHL, TERRY D., Art . BA, UNIVERSITY NORTHERN IOWA

KAPANKA, AMY R., Admin Studies . MS, UNIVERSITY SOUTH DAKOTA; Medical Technology. BS,

KASEMEIER, MELISSA R., Elementary Education . BS, IOWA STATE UNIVERSITY; Math Elem &

KIM, NAHYUN ., . MA, UNIVERSITY MISSOURI KANSAS CITY

KNUTSON, EMILY E., Early Childhood Education. MAE, UNIVERSITY NORTHERN IOWA; Elementary

KOEHN, CINDY M., Occupational Therapy. BS, COLLEGE ST MARY; Occupationaltherapy Prof Devel.

KURTZ, RYAN R., Conservation. BS, UNIV WISC RIVER FALLS; Environ Science/Tech . MS,

LANEVILLE, ANNA A., English . BA, UNIVERSITY ST THOMAS; English . MA, UNIVERSITY ST

LAWRENCE, GREGORY L., Business . BS, UPPER IOWA UNIVERSITY; Diesel Truck Tech. AAS, KIRKWOOD COMMUNITY COLLEGE; General Studies. AA, UNIV CENTRAL TEXAS

LEARY, MICHAEL D., . MP, WALDEN UNIVERSITY; Criminal Justice. MA, ST AMBROSE UNIVERSITY; Criminal Justice. PHD, WALDEN UNIVERSITY; Criminology . BA, UNIVERSITY NORTHERN IOWA;

LUHRING, DANIELLE R., Dental Assisting. DIPL, HAWKEYE COMMUNITY COLLEGE; Dental Hygiene. AAS, HAWKEYE COMMUNITY COLLEGE; Dental Hygiene. BHS, ALLEN COLLEGE; Organizational

LUVERT, CAROL L., English . BA, UNIVERSITY NORTHERN IOWA; English . MA, UNIVERSITY

MAHLOCH, GWEN G., . MHA, PURDUE UNIVERSITY GLOBAL (KAPLAN UNIVERSITY)

MALLOY, PATRICK T., African Area Studies. MA, UNIVERSITY CALIFORNIA-LOS ANGELES; History .

MCRAE, JOHN A., Bioengineering. MS, CLEMSON UNIVERSITY; Biomedical Engineering. BS,

METZ, IRENE K., Chemistry . BS, MICHIGAN TECH UNIVERSITY; Chemistry . MS, UNIVERSITY IOWA

MEYERS, LAURA K., Elementary Education . BA, UNIVERSITY NORTHERN IOWA; Reading . MAE,

MILLER, MELISSA M., Dental Assisting. DIPL, HAWKEYE COMMUNITY COLLEGE; Dental Hygiene.

MUNOZ, LISA J., Liberal Arts. AA, DES MOINES AREA COMMUNITY COLLEGE; Sociology . BA, UNIVERSITY IOWA; Sociology . MA, LOYOLA UNIVERSITY CHICAGO

NAGLE, KATRINA M., Civil Engineering. BS, UNIVERSITY ILLINOIS AT URBANA - CHAMPAIGN; Civil Engineering. MS, UNIVERSITY ILLINOIS AT URBANA - CHAMPAIGN

NARIGON, AARON J., English . BA, UNIVERSITY NORTHERN IOWA; English . MA, UNIVERSITY

NEELY, JOHN J., General Studies. AA, HAWKEYE COMMUNITY COLLEGE; Mathematics . BA, UNIVERSITY NORTHERN IOWA; Mathematics . MA, UNIVERSITY NORTHERN IOWA

NELSON, MADALENE A., Communication/Electronic Media. BA, UNIVERSITY NORTHERN IOWA;

NICHOLAS, ANDREW J., Physics . BA, UNIVERSITY NORTHERN IOWA; Science Education. MA,

NIERLING, DANIEL G., Education . MED, IOWA STATE UNIVERSITY; Journalism & Mass Comm. BA,

NOVAK, STEVEN J., Electronics Engineering Tech. AAS, DEVRY INST TECH CHICAGO IL (USE

OBERMIRE, TONYA R., Dental Hygiene. AAS, HAWKEYE COMMUNITY COLLEGE; Public

PARKER, LEAH ., . BA, UNIVERSITY MINNESOTA TWIN CITIES; . MA, UNIVERSITY COLORADO AT

PAUL, KAREN K., Liberal Arts. AA, NORTH IOWA AREA COMMUNITY COLLEGE; Mathematics . BS, IOWA STATE UNIVERSITY; Mathematics . MA, UNIVERSITY NORTHERN IOWA

POLAND, JUDY K., Dental Assisting. DIPL, HAWKEYE COMMUNITY COLLEGE; Dental Hygiene. AAS, HAWKEYE COMMUNITY COLLEGE; Health Education. MA, WASHBURN UNIVERSITY; Human

REYNOLDS, KAREN R., Business Mgmt . MBA, UNIV WISCONSIN MADISON; Comm Studies . BA, UNIVERSITY IOWA; Education Leadership. PHD, IOWA STATE UNIVERSITY

RICH, MICHAELA L., Chemistry . BS, UNIVERSITY NORTHERN IOWA; Chemistry . MA, UNIVERSITY

SANCHEZ, ASHLEY A., Psychology . BA, UNIVERSITY NORTHERN IOWA; Sociology . MA, NORTHRN

SAVAGE, MIKKI M., Higher Education. EDD, NOVA SOUTHEASTERN UNIV; Kinesology . MS, UNIVERSITY ILLINOIS CHICAGO (UIC); Physical Education . BA, LORAS COLLEGE

SCHNEIDER, MELISSA M., Health Admin. BS, UPPER IOWA UNIVERSITY; Higher Education. MED, UPPER IOWA UNIVERSITY; Physical Therapist Assistant. AAS, AUSTIN COMMUNITY COLL-TEXAS

SEIBLE, MARCEA K., English . BA, UNIVERSITY NORTHERN IOWA; English . MA, UNIVERSITY NORTHERN IOWA; English Studies. PHD, ILLINOIS STATE UNIVERSITY

SHETTIGAR, PARESH S., Civil Engineering. MS, UNIV WISCONSIN MADISON; Engineering . BE, OUT

SMITH, LINDA D., International Stds . MA, AMERICAN UNIVERSITY DC; International Stds . PHD,

SMITH, CHAD A., Automotive Technology. AAS, HAWKEYE COMMUNITY COLLEGE

SPRAGUE, ROBIN L., English . MA, UNIVERSITY NORTHERN IOWA; Political Science . BA,

STABENOW, TODD A., Business Administration. MBA, UNIVERSITY NORTHERN IOWA; Mathematics

STEED, ROBERT P., Philosophy . BA, UNIVERSITY SOUTH CAROLINA COLUMBIA; Religious Stdies . MA, UNIVERSITY SOUTH CAROLINA COLUMBIA; Religious Stdies . PHD, UNIVERSITY IOWA

STRICKERT, BENJAMIN A., . AAS, KIRKWOOD COMMUNITY COLLEGE

THEUSCH, CASSANDRA M., Biology . PHD, UNIVERSITY WISCONSIN COLLEGES

THOMAS, BRIAN J., . AAS, DES MOINES AREA COMMUNITY COLLEGE

TOE, JOSEPH A., Economics . BS, OUT COUNTRY COLLEGE; Economics . PHD, SOUTHRN

TRANBARGER, JORDAN M., Fitness Management. BA, WARTBURG COLLEGE; Occupational Therapy

ULRICH, DEANNE L., Business . BA, UNIVERSITY NORTHERN IOWA; Computer Appl . MAE, UNIVERSITY NORTHERN IOWA; Health Admin. MBA, WILMINGTON COLLEGE DE

WEST, BRIDGETTE M., Biology . MS, EASTERN MICHIGAN UNIVERSITY; General Agriculture. BS,

WHITE, ALISON N., Human Relations Emphasis. BAS, UNIVERSITY IOWA; Liberal Arts. AA, HAWKEYE COMMUNITY COLLEGE; Respiratory Care. AAS, HAWKEYE COMMUNITY COLLEGE;

WILCOX, JOY E., . MSN, ASPEN UNIVERSITY; Medical Assistant. AAS, PURDUE UNIVERSITY GLOBAL (KAPLAN UNIVERSITY); Nursing . AAS, ELLSWORTH COMMUNITY COLLEGE (USE

WULF, DRESDEN D., . AS, COTTEY COLLEGE; Ag Education . BS, IOWA STATE UNIVERSITY; Animal Science. BS, IOWA STATE UNIVERSITY; Food Safety. MS, MICHIGAN STATE UNIVERSITY

ZUCK, BRIAN D., . BA, NORTHWEST MISSOURI STATE UNIVERSITY; Ag Business Management. AAS, HAWKEYE COMMUNITY COLLEGE; General Agriculture. DIPL, HAWKEYE COMMUNITY

# LIBERAL ARTS DEGREE REQUIREMENTS AND TRANSFER MAJORS

# Liberal Arts Transfer Plan

Hawkeye's Liberal Arts transfer plan allows you to complete the first two years of a bachelor's degree. A variety of liberal arts core (general education) and elective courses are offered from a wide range of disciplines to prepare students to transfer to a public or private four-year college or university.

## Associate of Arts (AA)

The Associate of Arts in Liberal Arts degree enables you to meet most general education requirements and be admitted as a junior at most four-year colleges and universities.

## Associate of Science (AS)

The Associate of Science in Liberal Arts degree enables you to focus your education on math or science fields, meet most general education requirements, and be admitted as a junior at most four-year colleges and universities.

Due to the nature of sequential courses, you must work with a Hawkeye academic advisor for major-specific transfer information and to register for classes.

## 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 or 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.

## Transfer Majors

Choosing a transfer major will help you in the selection of your courses if you know what four-year degree you would like to pursue. If you are undecided, it may help you determine if a major or career track is the right choice.

## Transfer Information

Hawkeye has established articulation agreements with many four-year public and private colleges within Iowa. You should work closely with a program advisor to ensure courses transfer and you meet program requirements. During your first year, contact the Admissions office at the college you plan to transfer to and obtain specific program and transfer requirements.

## Program Admission

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions
3. Meet basic skill competencies in reading, writing, and math.

# Liberal Arts Associate of Arts (AA) Degree Requirements

| | |
|---|---|
| **Award** | Associate of Arts (AA) |
| **Credits** | 60 |
| **Enrollment** | Full-time or Part-time |
| **Program Start** | Fall, Spring, Summer |
| **Time to Complete** | 2 years |
| **Course Format** | Face-to-Face, Online, Hybrid |
| **Class Meets** | Day, Evening, Online |

## Planning Your Class Schedule

You can complete the Associate of Arts degree in Liberal Arts entirely online, during the day, or with a combination of online, evening, hybrid, and daytime courses to create a schedule that fits your needs.

The courses listed below are marked to show you at a glance some of the different formats the course may be offered, however, **course offerings change semester by semester**. Search for current course offerings at www.hawkeyecollege.edu/academics/courses.

Work with your Academic/College Success Advisor to select courses, make a transfer plan, and review your progress.

Contact the Admissions office at the college to which you plan to transfer during your first year at Hawkeye in order to obtain specific program and transfer requirements.

| | |
|---|---|
| **O** | Course meets 100% online |
| **E** | Course meets face-to-face after 5:00pm |
| + | Course has a prerequisite and/or corequisite. See course description for more details. |
| | Course can be repeated. See course description for more details. |
| | Course meets the Diversity Requirement |
| | Course meets the Global Requirement |
| | Course meets the Distributed Requirement |

**Courses are subject to change.**

## I. GRADUATION REQUIREMENT

**Minimum credits required: 1**

### Graduation Requirement Courses

| | | | |
|---|---|---|---|
| SDV-108 | The College Experience | E O | 1 |
| SDV-109 | College 101 | | 3 |

## II. SCIENCE AND MATHEMATICS

**Minimum credits required: 10**

Requires:

- One Science course with lab AND
- One Mathematics course AND
- One additional Science course (with or without lab) OR Mathematics course

### Science Courses with Lab

| | | | |
|---|---|---|---|
| BIO-105 | Introductory Biology | | 4 |
| BIO-112 | General Biology I | | 4 |
| BIO-113 | General Biology II | | 4 |
| BIO-163 | Essentials of Anatomy and Physiology | O | 4 |
| BIO-166 | Fundamentals of Anatomy and Physiology | O | 4 |
| BIO-168 | Human Anatomy and Physiology I | E O | 4 |
| BIO-173 | Human Anatomy and Physiology II + | E O | 4 |
| BIO-186 | Microbiology | E O | 4 |
| CHM-122 | Introduction to General Chemistry + | E O | 4 |
| CHM-165 | General Chemistry I + | | 4 |
| CHM-175 | General Chemistry II + *(Spring only)* | | 4 |
| ENV-115 | Environmental Science AND | O | 3 |
| ENV-116 | Environmental Science Lab + | O | 1 |
| PHS-120 | Exploring Physical Science + *(Spring only)* | | 4 |
| PHS-152 | Astronomy + *(Fall only)* | E | 4 |
| PHY-162 | College Physics I + | | 4 |

| Sciences Courses without Lab | | | | |
|---|---|---|---|---|
| BIO-154 | Human Biology | O | 3 | |
| ENV-115 | Environmental Science | O | 3 | |
| PHS-142 | Principles of Astronomy +<br>*(Fall only)* | | 3 | |
| PHY-100 | Physics in Everyday Life | | 3 | |

| Mathematics Courses | | | | |
|---|---|---|---|---|
| BUS-210 | Business Statistics + | O | 3 | |
| BUS-230 | Quantitative Methods for Business Decision Making + | | 3 | |
| MAT-110 | Math for Liberal Arts + | E O | 3 | |
| MAT-112 | Math for Elementary Teachers I + | | 3 | |
| MAT-118 | Math for Elementary Teachers II + | | 3 | |
| MAT-121 | College Algebra + | | 4 | |
| MAT-128 | Precalculus + | | 4 | |
| MAT-134 | Trigonometry and Analytic Geometry + | | 3 | |
| MAT-156 | Statistics + | E O | 3 | |
| MAT-210 | Calculus I + | O | 4 | |

## III. HUMANITIES

**Minimum credits required: 9**

Requires:

- One course from Humanities: History AND
- Two courses from Humanities: General from two different subjects (ART, CLS, DRA, etc.).

| Humanities: History Courses | | | | |
|---|---|---|---|---|
| HIS-117 | Western Civilization I: Ancient and Medieval | O | 3 | |
| HIS-118 | Western Civilization II: Early Modern | O | 3 | |
| HIS-119 | Western Civilization III: The Modern Period | E O | 3 | |
| HIS-133 | A History of the World Through Pandemic Diseases | | 3 | |
| HIS-151 | U.S. History to 1877 | O | 3 | |
| HIS-152 | U.S. History Since 1877 | O | 3 | |
| HIS-201 | Iowa History | | 3 | |
| HIS-204 | Rock to Hip Hop — A History<br>*(Fall only)* | | 3 | |
| HIS-251 | U.S. History 1945 to Present | | 3 | |
| HIS-257 | African American History | O | 3 | |
| HIS-277 | History of Women in the U.S. | | 3 | |

| Humanities: General Courses | | | | |
|---|---|---|---|---|
| ART-101 | Art Appreciation | O | 3 | |
| ART-203 | Art History I | | 3 | |
| ART-204 | Art History II<br>*(Spring Only)* | | 3 | |
| CLS-130 | African Cultures | O | 3 | |
| CLS-141 | Middle Eastern History and Culture | | 3 | |
| CLS-150 | Latin American History and Culture | O | 3 | |
| CLS-160 | East Asian Cultures | O | 3 | |
| CLS-164 | Japanese History and Culture | O | 3 | |
| DRA-107 | Theatrical Arts and Society<br>*(Fall only)* | O | 3 | |
| DRA-110 | Introduction to Film<br>*(Spring only)* | O | 3 | |
| HUM-141 | J.R.R. Tolkien: Mythology and Methodology<br>*(Spring only)* | | 3 | |
| LIT-101 | Introduction to Literature | O | 3 | |
| LIT-133 | Minority Voices in U.S. Literature<br>*(Fall only)* | O | 3 | |
| LIT-145 | Shakespeare: Dramatist, Psychologist, Historian | | 3 | |
| LIT-160 | Short Story/Novel<br>*(Spring only)* | O | 3 | |
| LIT-189 | Women and Literature<br>*(Fall only)* | | 3 | |
| LIT-191 | Iowa Literature and History | | 3 | |
| MUS-100 | Music Appreciation | O | 3 | |
| MUS-202 | World Music<br>*(Fall only)* | | 3 | |
| PHI-101 | Introduction to Philosophy | O | 3 | |
| PHI-105 | Introduction to Ethics | O | 3 | |
| REL-101 | Survey of World Religions | O | 3 | |
| REL-130 | Introduction to Religions of the East | O | 3 | |

## IV. SOCIAL SCIENCES

**Minimum credits required: 9**

Requires:

- One Psychology course AND
- One Sociology course AND
- One Other Social Sciences course OR
  one additional Psychology course or Sociology course

### Psychology Courses

| | | | | |
|---|---|---|---|---|
| PSY-111 | Introduction to Psychology | E O | 3 | |
| PSY-121 | Developmental Psychology | | 3 | |
| PSY-241 | Abnormal Psychology + | O | 3 | |
| PSY-251 | Social Psychology + | | 3 | |
| PSY-262 | Psychology of Gender + | O | 3 | |

### Sociology Courses

| | | | | |
|---|---|---|---|---|
| SOC-110 | Introduction to Sociology | O | 3 | |
| SOC-115 | Social Problems | O | 3 | |
| SOC-202 | Race and Ethnic Relations | | 3 | |
| SOC-205 | Identity and Inequity in U.S. Society | E O | 3 | |
| SOC-220 | Sociology of Aging<br>*(Fall only)* | | 3 | |
| SOC-290 | Social Movements | | 3 | |

### Other Social Sciences Courses

| | | | | |
|---|---|---|---|---|
| COM-148 | Diversity and the Media | | 3 | |
| CRJ-200 | Criminology | O | 3 | |
| CRJ-201 | Juvenile Delinquency | O | 3 | |
| ECN-120 | Principles of Macroeconomics + | O | 3 | |
| ECN-130 | Principles of Microeconomics + | O | 3 | |
| EDU-240 | Educational Psychology + | | 3 | |
| GEO-121 | World Regional Geography | O | 3 | |
| POL-111 | American National Government | E O | 3 | |
| POL-121 | International Relations<br>*(Fall only)* | E | 3 | |
| POL-125 | Comparative Government and Politics<br>*(Spring only)* | | 3 | |
| SOC-208 | Introduction to Cultural Anthropology<br>*(Spring only)* | | 3 | |
| WST-101 | Women's Studies | O | 3 | |

## V. COMMUNICATIONS

**Minimum credits required: 9**

### Written Communications Courses

| | | | |
|---|---|---|---|
| ENG-105 Composition I + AND | E | O | 3 |
| ENG-106 Composition II + | E | O | 3 |

### Oral Communications Courses

| | | | |
|---|---|---|---|
| SPC-101 Fundamentals of Oral Communication OR | E | O | 3 |
| SPC-112 Public Speaking | | | 3 |

## VI. INDIVIDUAL DEVELOPMENT AND WELL-BEING

**Minimum credits required: 3**

| Individual Development and Well-Being Courses | | | |
|---|---|---|---|
| ART-120 | 2-D Design<br>*(Fall only)* | | 3 |
| ART-123 | 3-D Design<br>*(Spring only)* | | 3 |
| ART-133 | Drawing | | 3 |
| ART-134 | Drawing II | | 3 |
| ART-143 | Painting | | 3 |
| ART-144 | Painting II | | 3 |
| BIO-151 | Nutrition | O | 3 |
| BIO-269 | Foodology | E | 3 |
| DRA-130 | Acting I | | 3 |
| ENG-221 | Creative Writing<br>*(Fall only)* | | 3 |
| MUA-101 | Applied Voice | | 1 |
| MUA-112 | Applied Composition | | 1 |
| MUA-120 | Applied Piano | | 1 |
| MUA-121 | Applied Piano II | | 2 |
| MUA-124 | Applied Guitar | | 1 |
| MUA-126 | Applied Strings | | 1 |
| MUA-149 | Applied Strings II | | 2 |
| MUA-180 | Applied Percussion | | 1 |
| MUA-181 | Applied Percussion II | | 1 |
| MUA-212 | Applied Composition II | | 2 |
| MUA-227 | Applied Guitar II | | 2 |
| MUA-401 | Applied Voice II | | 2 |
| MUS-154 | Chorus | | 1 |
| PEH-111 | Personal Wellness | O | 3 |
| PSY-261 | Human Sexuality | | 3 |
| SOC-120 | Marriage and Family | E O | 3 |
| SOC-135 | Death and Dying | O | 3 |
| SPC-140 | Oral Interpretation<br>*(Spring only)* | | 3 |

## VII. PROFESSIONAL DEVELOPMENT AND EXPLORATION

**Minimum credits required: 3**

| Professional Development and Exploration Courses | | | | |
|---|---|---|---|---|
| ACC-152 | Financial Accounting | O | 4 | |
| BUS-102 | Introduction to Business | O | 3 | |
| COM-140 | Introduction to Mass Media<br>*(Fall only)* | | 3 | |
| COM-151 | ETC: Art and Literary Magazine<br>*(Spring only)* | | 3 | |
| CRJ-100 | Introduction to Criminal Justice | O | 3 | |
| CRJ-120 | Introduction to Corrections | O | 3 | |
| EDU-210 | Foundations of Education | | 3 | |
| EDU-246 | Including Diverse Learners | O | 3 | |
| EDU-901 | Academic Service Learning Experience | O | 1 | |
| ENG-230 | Creative Writing: Fiction<br>*(Spring only)* | | 3 | |
| ENG-235 | Playwriting and Screenwriting | | 3 | |
| HSV-109 | Introduction to Human Services<br>*(Fall only)* | O | 3 | |
| JOU-115 | Introduction to Journalism | | 3 | |
| MUS-102 | Music Fundamentals | | 3 | |
| MUS-106 | Music Theory I | | 4 | |
| MUS-107 | Music Theory II | | 4 | |
| PEH-160 | Fundamentals of Health Coaching<br>*(Spring only)* | | 3 | |
| PEH-162 | Introduction to Physical Education | | 3 | |
| POL-270 | Social and Behavioral Research Methods OR | | 3 | |
| PSY-270 | Social and Behavioral Research Methods OR | | 3 | |
| SOC-270 | Social and Behavioral Research Methods | | 3 | |
| SOC-160 | Introduction to Social Work | O | 3 | |
| SOC-181 | Field Experience | O | 1 | |
| SPC-120 | Intercultural Communications<br>*(Fall only)* | O | 3 | |
| SPC-122 | Interpersonal Communication<br>*(Spring only)* | | 3 | |
| SPC-132 | Group Communication<br>*(Fall only)* | | 3 | |
| XXX-924 | Honors Project OR | | 1 | |
| XXX-926 | Honors Seminar OR | | 3 | |
| XXX-928 | Independent Study OR | | 1 | |
| XXX-949 | Special Topics | | 1 | |

## VIII. DIVERSITY REQUIREMENT

**Minimum credits required: 3**

Choose any course marked

## IX. GLOBAL REQUIREMENT

**Minimum credits required: 3**

Choose any course marked

## X. DISTRIBUTED REQUIREMENT

**Minimum credits required: 3**

Requires:

- One additional 3 credit course from
    - I. Graduation Requirements OR
    - II. Science and Mathematics OR
    - III. Humanities OR
    - IV. Social Sciences OR
    - V. Communications
- OR one course marked from
    - VI. Individual Development and Well-Being OR
    - VII. Professional Development and Exploration

## XI. ELECTIVES

**Minimum credits required: 10 – 16**

- May include courses from:
  - I. Graduation Requirements
  - II. Science and Mathematics
  - III. Humanities
  - IV. Social Sciences
  - V. Communications
  - VI. Individual Development and Well-Being
  - VII. Professional Development and Exploration
  - XI. Electives
- Technical credits may also be used.

Contact your Academic/College Success Advisor for more information.

| Elective Courses | | | |
|---|---|---|---|
| ACC-156 | Managerial Accounting + | O | 4 |
| ART-184 | Photography | | 3 |
| BUS-180 | Business Ethics | O | 3 |
| BUS-183 | Business Law | O | 3 |
| CHM-132 | Introduction to Organic and Biochemistry + | E | 4 |
| CHM-260 | Organic Chemistry I + | | 3 |
| CHM-270 | Organic Chemistry II + | | 3 |
| CRJ-233 | Probation, Parole, Community-Based Corrections + | O | 3 |
| CRJ-316 | Juvenile Justice + *(Spring only)* | O | 3 |
| CRJ-317 | White Collar Crime + *(Spring only)* | O | 3 |
| CRJ-320 | Criminal Justice Ethics *(Spring only)* | O | 3 |
| CSC-110 | Introduction to Computers + | O | 3 |
| CSC-116 | Information Computing + | O | 3 |
| ECN-110 | Introduction to Economics *(No credit if ECN-120 or ECN-130 earned)* | | 3 |
| EDU-130 | Home, School, and Community Relations | O | 3 |
| EDU-235 | Children's Literature | O | 3 |
| EDU-255 | Technology in the Classroom *(Spring only)* | O | 3 |
| EDU-920 | Field Experience + | O | 1 |
| FLS-131 | Elementary Spanish I | | 3 |
| FLS-132 | Elementary Spanish II | | 3 |
| FLS-231 | Intermediate Spanish I | | 3 |
| FLS-232 | Intermediate Spanish II + | | 3 |
| JOU-121 | Newswriting and Reporting + | | 3 |

| Elective Courses | | | |
|---|---|---|---|
| JOU-121 | Newswriting and Reporting + | | 3 |
| LIT-949 | Special Topics | | 1 |
| MAT-102 | Intermediate Algebra | | 4 |
| MAT-216 | Calculus II + | | 4 |
| MAT-219 | Calculus III + | | 4 |
| MGT-101 | Principles of Management | O | 3 |
| MIL-103 | Military Survival Skills | | 2 |
| MIL-110 | Leadership and Personal Development *(ROTC @ UNI)* | | 1 |
| MIL-115 | Foundations of Tactical Leadership *(ROTC @ UNI)* | | 1 |
| MIL-121 | Leadership and Decision Making *(ROTC @ UNI)* | | 2 |
| MIL-122 | Leadership in Changing Environment *(ROTC @ UNI)* | | 2 |
| MKT-110 | Principles of Marketing | O | 3 |
| MUA-106 | Class Voice | | 1 |
| MUA-119 | Class Piano | | 1 |
| PEA-117 | Bowling I | | 1 |
| PEA-123 | Circuit Training | | 1 |
| PEA-150 | Powerwalking | O | 1 |
| PEA-187 | Weight Training I + | | 1 |
| PEA-191 | Pilates | O | 1 |
| PEA-194 | Vinyasa Yoga | O | 1 |
| PEC-110 | Coaching Ethics, Techniques, and Theory *(Spring only)* | O | 1 |
| PEC-115 | Athletic Development and Human Growth *(Spring only)* | O | 1 |
| PEC-123 | Anatomy for Coaching *(Spring only)* | O | 1 |
| PEC-127 | Care and Prevention of Athletic Injuries *(Spring only)* | O | 2 |
| PEH-141 | First Aid | | 2 |
| PEH-191 | Sports Nutrition | | 3 |
| PEH-909 | Cooperative Education + | O | 1 |
| PHY-172 | College Physics II + *(Spring only)* | | 4 |
| SOC-180 | Social Work Interactional Skills + | O | 3 |
| WBL-100 | Exploring Careers | O | 1 |

# Liberal Arts Associate of Science (AS) Degree Requirements

| | |
|---|---|
| **Award** | Associate of Science (AS) |
| **Credits** | 60 |
| **Enrollment** | Full-time or Part-time |
| **Program Start** | Fall, Spring, Summer |
| **Time to Complete** | 2 years |
| **Course Format** | Face-to-Face, Online, Hybrid |
| **Class Meets** | Day, Evening, Online |

## Planning Your Class Schedule

Choose from day, evening, hybrid, and online classes to create a schedule that fits your needs. The courses listed below are marked to show you at a glance some of the different formats the course may be offered, however, **course offerings change semester by semester**. Search for current course offerings at www.hawkeyecollege.edu/academics/courses.

Work with your Academic/College Success Advisor to select courses, make a transfer plan, and review your progress.

Contact the admissions office at the college to which you plan to transfer during your first year at Hawkeye in order to obtain specific program and transfer requirements

| | |
|---|---|
| **O** | Course meets 100% online |
| **E** | Course meets face-to-face after 5:00pm |
| + | Course has a prerequisite and/or corequisite. See course description for more details. |
| + | Course has a prerequisite and/or corequisite. See course description for more details. |
| | Course can be repeated. See course description for more details. |
| | Course meets the Diversity Requirement |
| | Course meets the Global Requirement |
| | Course meets the Distributed Requirement |

**Courses and costs are subject to change.**

## I. GRADUATION REQUIREMENT

**Minimum credits required: 1**

### Graduation Requirement Courses

| | | | | |
|---|---|---|---|---|
| SDV-108 | The College Experience | E | O | 1 |
| SDV-109 | College 101 | | | 3 |

## II. SCIENCE AND MATHEMATICS

**Minimum credits required: 20**

Requires:

- One Science course with lab AND
- One Mathematics course AND
- A two course sequence in Science OR
  A two course sequence in Mathematics

**Students must work with their Academic/College Success Advisor to determine the math and science sequence needed to transfer to the program and university of choice.**

### Science Courses with Lab

| | | | | |
|---|---|---|---|---|
| BIO-112 | General Biology I | | | 4 |
| BIO-113 | General Biology II | | | 4 |
| BIO-151 | Nutrition | | O | 3 |
| BIO-168 | Human Anatomy and Physiology I | E | O | 4 |
| BIO-173 | Human Anatomy and Physiology II + | E | O | 4 |
| BIO-186 | Microbiology | E | O | 4 |
| CHM-165 | General Chemistry I + | | | 4 |
| CHM-175 | General Chemistry II + *(Spring only)* | | | 4 |
| ENV-115 | Environmental Science AND | | O | 3 |
| ENV-116 | Environmental Science Lab + | | O | 1 |
| PHS-152 | Astronomy + *(Fall only)* | E | | 4 |
| PHY-162 | College Physics I + | | | 4 |
| PHY-172 | College Physics II + | | | 4 |
| PHY-212 | Classical Physics I + | | | 5 |
| PHY-222 | Classical Physics II + | | | 5 |

### Science Courses without Lab

| | | | | |
|---|---|---|---|---|
| CHM-260 | Organic Chemistry I + | | 3 | |
| CHM-270 | Organic Chemistry II + | | 3 | |
| CNS-121 | Environmental Conservation | | 3 | |
| ENV-115 | Environmental Science | O | 3 | |

### Mathematics Courses

| | | | | |
|---|---|---|---|---|
| MAT-121 | College Algebra + | | 4 | |
| MAT-128 | Precalculus + | | 4 | |
| MAT-134 | Trigonometry and Analytic Geometry + | | 3 | |
| MAT-156 | Statistics + | E O | 3 | |
| MAT-210 | Calculus I + | O | 4 | |
| MAT-216 | Calculus II + | | 4 | |
| MAT-219 | Calculus III + | | 4 | |

## III. HUMANITIES

**Minimum credits required: 3**

### Humanities

| | | | | |
|---|---|---|---|---|
| ART-101 | Art Appreciation | O | 3 | |
| ART-203 | Art History I | | 3 | |
| ART-204 | Art History II<br>*(Spring Only)* | | 3 | |
| CLS-130 | African Cultures | O | 3 | |
| CLS-141 | Middle Eastern History and Culture | | 3 | |
| CLS-150 | Latin American History and Culture | O | 3 | |
| CLS-160 | East Asian Cultures | O | 3 | |
| CLS-164 | Japanese History and Culture | O | 3 | |
| CLS-172 | Russian Civilization | | 3 | |
| DRA-107 | Theatrical Arts and Society<br>*(Fall only)* | O | 3 | |
| DRA-110 | Introduction to Film<br>*(Spring only)* | O | 3 | |
| HIS-117 | Western Civilization I: Ancient and Medieval | O | 3 | |
| HIS-118 | Western Civilization II: Early Modern | O | 3 | |
| HIS-119 | Western Civilization III: The Modern Period | E O | 3 | |
| HIS-133 | A History of the World Through Pandemic Diseases | | 3 | |
| HIS-151 | U.S. History to 1877 | O | 3 | |
| HIS-152 | U.S. History Since 1877 | O | 3 | |

### Humanities

| | | | | |
|---|---|---|---|---|
| HIS-201 | Iowa History | | 3 | |
| HIS-204 | Rock to Hip Hop — A History<br>*(Fall only)* | | 3 | |
| HIS-251 | U.S. History 1945 to Present | | 3 | |
| HIS-257 | African American History | O | 3 | |
| HIS-277 | History of Women in the U.S. | | 3 | |
| HUM-141 | J.R.R. Tolkien: Mythology and Methodology<br>*(Spring only)* | | 3 | |
| LIT-101 | Introduction to Literature + | O | 3 | |
| LIT-133 | Minority Voices in U.S. Literature<br>*(Fall only)* | O | 3 | |
| LIT-145 | Shakespeare: Dramatist, Psychologist, Historian | | 3 | |
| LIT-160 | Short Story/Novel<br>*(Spring only)* | O | 3 | |
| LIT-189 | Women and Literature<br>*(Fall only)* | | 3 | |
| LIT-191 | Iowa Literature and History | | 3 | |
| MUS-100 | Music Appreciation | O | 3 | |
| MUS-202 | World Music<br>*(Fall only)* | | 3 | |
| PHI-101 | Introduction to Philosophy | O | 3 | |
| PHI-105 | Introduction to Ethics | O | 3 | |
| REL-101 | Survey of World Religions | O | 3 | |
| REL-130 | Introduction to Religions of the East | O | 3 | |

## IV. SOCIAL SCIENCES

**Minimum credits required: 6**

Requires one course from two different areas:

- Psychology
- Sociology
- Other Social Sciences

### Psychology Courses

| | | | | |
|---|---|---|---|---|
| PSY-111 | Introduction to Psychology | E O | 3 | |
| PSY-121 | Developmental Psychology | | 3 | |
| PSY-241 | Abnormal Psychology + | O | 3 | |
| PSY-251 | Social Psychology + | | 3 | |
| PSY-262 | Psychology of Gender + | O | 3 | |

### Sociology Courses

| | | | | | |
|---|---|---|---|---|---|
| SOC-110 | Introduction to Sociology | | O | 3 | |
| SOC-115 | Social Problems | | O | 3 | |
| SOC-202 | Race and Ethnic Relations | | | 3 | |
| SOC-205 | Identity and Inequity in U.S. Society | E | O | 3 | |
| SOC-220 | Sociology of Aging<br>*(Fall only)* | | | 3 | |

### Other Social Sciences Courses

| | | | | | |
|---|---|---|---|---|---|
| COM-148 | Diversity and the Media | | | 3 | |
| CRJ-200 | Criminology | | O | 3 | |
| CRJ-201 | Juvenile Delinquency | | O | 3 | |
| ECN-120 | Principles of Macroeconomics + | | O | 3 | |
| ECN-130 | Principles of Microeconomics + | | O | 3 | |
| EDU-240 | Educational Psychology + | | | 3 | |
| GEO-121 | World Regional Geography | | O | 3 | |
| POL-111 | American National Government | E | O | 3 | |
| POL-121 | International Relations<br>*(Fall only)* | E | | 3 | |
| POL-125 | Comparative Government and Politics<br>*(Spring only)* | | | 3 | |
| SOC-208 | Introduction to Cultural Anthropology<br>*(Spring only)* | | | 3 | |
| WST-101 | Women's Studies | | O | 3 | |

## V. COMMUNICATIONS

**Minimum credits required: 9**

### Written Communications Courses

| | | | | | |
|---|---|---|---|---|---|
| ENG-105 | Composition I + AND | E | O | 3 | |
| ENG-106 | Composition II + | E | O | 3 | |

### Oral Communications Courses

| | | | | | |
|---|---|---|---|---|---|
| SPC-101 | Fundamentals of Oral Communication OR | E | O | 3 | |
| SPC-112 | Public Speaking | | | 3 | |

## VI. DIVERSITY REQUIREMENT

**Minimum credits required: 3**

Choose any course marked

## VII. DISTRIBUTED REQUIREMENT

**Minimum credits required: 2**

Requires:

- Select a minimum of two additional credits from:
  - I. Graduation Requirements
  - II. Science and Mathematics
  - III. Humanities
  - IV. Social Sciences
  - V. Communications

## VIII. ELECTIVES

**Minimum credits required: 13 – 16**

- May include courses from:
  - I. Graduation Requirements
  - II. Science and Mathematics
  - III. Humanities
  - IV. Social Sciences
  - V. Communications
  - VIII. Electives
- Technical credits may also be used.

Contact your Academic/College Success Advisor for more information.

### Elective Courses

| | | | | |
|---|---|---|---|---|
| ACC-152 | Financial Accounting + | O | 4 | |
| ACC-156 | Managerial Accounting + | O | 4 | |
| ART-120 | 2-D Design<br>*(Fall only)* | | 3 | |
| ART-123 | 3-D Design<br>*(Spring only)* | | 3 | |
| ART-133 | Drawing | | 3 | |
| ART-134 | Drawing II | | 3 | |
| ART-143 | Painting | | 3 | |
| ART-144 | Painting II + | | 3 | |
| ART-184 | Photography | | 3 | |
| BIO-269 | Foodology | E | 3 | |
| BUS-102 | Introduction to Business | O | 3 | |
| BUS-180 | Business Ethics | O | 3 | |
| BUS-183 | Business Law | O | 3 | |
| CHM-132 | Introduction to Organic and Biochemistry + | E | 4 | |

| Elective Courses | | | | |
|---|---|---|---|---|
| COM-140 | Introduction to Mass Media<br>*(Fall only)* | | 3 | |
| COM-151 | ETC: Art and Literary Magazine<br>*(Spring only)* | | 3 | |
| CRJ-100 | Introduction to Criminal Justice | O | 3 | |
| CRJ-120 | Introduction to Corrections | O | 3 | |
| CRJ-233 | Probation, Parole, Community-Based Corrections + | O | 3 | |
| CRJ-316 | Juvenile Justice +<br>*(Spring only)* | O | 3 | |
| CRJ-317 | White Collar Crime +<br>*(Spring only)* | O | 3 | |
| CRJ-320 | Criminal Justice Ethics<br>*(Spring only)* | O | 3 | |
| CSC-110 | Introduction to Computers + | O | 3 | |
| CSC-116 | Information Computing + | O | 3 | |
| DRA-130 | Acting I | | 3 | |
| ECN-110 | Introduction to Economics<br>*(No credit if ECN-120 or ECN-130 earned)* | | 3 | |
| EDU-130 | Home, School, and Community Relations | O | 3 | |
| EDU-210 | Foundations of Education | | 3 | |
| EDU-235 | Children's Literature | O | 3 | |
| EDU-246 | Including Diverse Learners | O | 3 | |
| EDU-255 | Technology in the Classroom<br>*(Spring only)* | O | 3 | |
| EDU-901 | Academic Service Learning Experience | O | 1 | |
| EDU-920 | Field Experience + | O | 1 | |
| ENG-221 | Creative Writing<br>*(Fall only)* | | 3 | |
| ENG-230 | Creative Writing: Fiction +<br>*(Spring only)* | | 3 | |
| ENG-235 | Playwriting and Screenwriting | | 3 | |
| FLS-131 | Elementary Spanish I | | 3 | |
| FLS-132 | Elementary Spanish II | | 3 | |
| FLS-231 | Intermediate Spanish I | | 3 | |
| FLS-232 | Intermediate Spanish II + | | 3 | |
| HSV-109 | Introduction to Human Services<br>*(Fall only)* | O | 3 | |
| JOU-115 | Introduction to Journalism | | 3 | |
| JOU-121 | Newswriting and Reporting + | | 3 | |
| LIT-949 | Special Topics | | 1 | |

| Elective Courses | | | | |
|---|---|---|---|---|
| MAT-102 | Intermediate Algebra | | 4 | |
| MAT-112 | Math for Elementary Teachers I + | | 3 | |
| MAT-118 | Math for Elementary Teachers II + | | 3 | |
| MGT-101 | Principles of Management | O | 3 | |
| MIL-103 | Military Survival Skills | | 2 | |
| MIL-110 | Leadership and Personal Development *(ROTC @ UNI)* | | 1 | |
| MIL-115 | Foundations of Tactical Leadership *(ROTC @ UNI)* | | 1 | |
| MIL-121 | Leadership and Decision Making *(ROTC @ UNI)* | | 2 | |
| MIL-122 | Leadership in Changing Environment *(ROTC @ UNI)* | | 2 | |
| MKT-110 | Principles of Marketing | O | 3 | |
| MUA-101 | Applied Voice | | 1 | |
| MUA-112 | Applied Composition | | 1 | |
| MUA-120 | Applied Piano | | 1 | |
| MUA-121 | Applied Piano II | | 2 | |
| MUA-124 | Applied Guitar | | 1 | |
| MUA-126 | Applied Strings | | 1 | |
| MUA-149 | Applied Strings II | | 2 | |
| MUA-180 | Applied Percussion | | 1 | |
| MUA-181 | Applied Percussion II + | | 1 | |
| MUA-212 | Applied Composition II | | 2 | |
| MUA-227 | Applied Guitar II | | 2 | |
| MUA-401 | Applied Voice II | | 2 | |
| MUS-102 | Music Fundamentals | | 3 | |
| MUS-106 | Music Theory I | | 4 | |
| MUS-107 | Music Theory II + | | 4 | |
| MUS-154 | Chorus | | 1 | |
| PEA-117 | Bowling I | | 1 | |
| PEA-123 | Circuit Training | | 1 | |
| PEA-150 | Powerwalking | O | 1 | |
| PEA-187 | Weight Training I + | | 1 | |
| PEA-191 | Pilates | O | 1 | |
| PEA-194 | Vinyasa Yoga | O | 1 | |
| PEC-110 | Coaching Ethics, Techniques, and Theory *(Spring only)* | O | 1 | |

| Elective Courses | | | | | |
|---|---|---|---|---|---|
| PEC-115 | Athletic Development and Human Growth<br>*(Spring only)* | | O | 1 | |
| PEC-123 | Anatomy for Coaching<br>*(Spring only)* | | O | 1 | |
| PEC-127 | Care and Prevention of Athletic Injuries<br>*(Spring only)* | | O | 2 | |
| PEH-111 | Personal Wellness | | O | 3 | |
| PEH-141 | First Aid | | | 2 | |
| PEH-160 | Fundamentals of Health Coaching<br>*(Spring only)* | | | 3 | |
| PEH-162 | Introduction to Physical Education | | | 3 | |
| PEH-191 | Sports Nutrition | | | 3 | |
| PEH-909 | Cooperative Education | | O | 1 | |
| PHY-100 | Physics in Everyday Life | | | 3 | |
| POL-270 | Social and Behavioral Research Methods OR | | | 3 | |
| PSY-270 | Social and Behavioral Research Methods OR | | | 3 | |
| SOC-270 | Social and Behavioral Research Methods | | | 3 | |
| PSY-261 | Human Sexuality | | | 3 | |
| SOC-120 | Marriage and Family | E | O | 3 | |
| SOC-135 | Death and Dying | | O | 3 | |
| SOC-160 | Introduction to Social Work | | O | 3 | |
| SOC-180 | Social Work Interactional Skills | | O | 3 | |
| SOC-181 | Field Experience | | O | 1 | |
| SPC-120 | Intercultural Communications<br>*(Fall only)* | | O | 3 | |
| SPC-122 | Interpersonal Communication<br>*(Spring only)* | | | 3 | |
| SPC-132 | Group Communication<br>*(Fall only)* | | | 3 | |
| SPC-140 | Oral Interpretation<br>*(Spring only)* | | | 3 | |
| WBL-100 | Exploring Careers | | O | 1 | |

# Biology Liberal Arts Transfer Major

The biology transfer major will allow you to transfer to a public or private four-year college or university to earn a degree in biology. Consider biology if you are interested in research with industry or government, primary or secondary school teaching, or entering advanced degree programs for practice in health professions such as medicine, dentistry, or physical therapy.

## Planning Your Course Schedule

Students should consult with their Academic/College Success Advisor to select courses, make a transfer plan, and periodically review their progress towards their degree completion.

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

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

## Program Admission

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions
3. Meet basic skill competencies in reading, writing, and math.

# Biology Liberal Arts Transfer Major AS Degree Courses

| | |
|---|---|
| **Award** | Associate of Science (AS) |
| **Credits** | 60 |
| **Enrollment** | Full-time, Part-time |
| **Program Start** | Fall, Spring, Summer |

Courses are subject to change.

- ◆ General education course.
- ► Course has a prerequisite and/or corequisite.
- **O** Course meets 100% online.
- **E** Course meets face-to-face after 5:00pm.

| **Term 1** | | |
|---|---|---|
| BIO-112 | General Biology I | 4 |
| ENG-105 | Composition I ► | 3 |
| SDV-108 | The College Experience | 1 |
| | Liberal Arts AS Elective course | 3 |
| | Liberal Arts AS Social Sciences course | 3 |
| | | **Total Credits 14** |

| **Term 2** | | |
|---|---|---|
| BIO-113 | General Biology II | 4 |
| ENG-106 | Composition II ► | 3 |
| MAT-210 | Calculus I ► | 4 |
| | Liberal Arts AS Elective course | 3 |
| | | **Total Credits 14** |

| Term 3 | | | |
|---|---|---|---|
| CHM-165 | General Chemistry I ► | 4 | |
| | Social Behavioral Science | 3 | |
| | Liberal Arts AS Elective course | 2 | |
| | Liberal Arts AS Elective course | 3 | |
| | Liberal Arts AS Math course -OR- | 4 | |
| | Liberal Arts AS Science course with lab | 4 | |
| | | **Total Credits 16** | |

| Term 4 | | | |
|---|---|---|---|
| CHM-175 | General Chemistry II ► | 4 | |
| SPC-101 | Fundamentals of Oral Communication -OR- | 3 | ◆ |
| SPC-112 | Public Speaking | 3 | ◆ |
| | Liberal Arts AS Elective course | 3 | |
| | Liberal Arts AS Elective course | 3 | |
| | Liberal Arts AS Humanities course | 3 | |
| | | **Total Credits 16** | |

# Business Liberal Arts Transfer Major

Students will take about half of the business core needed for a four-year degree, depending on their individual situation and incoming coursework. Students will learn about accounting, economics, management information systems, quantitative analysis, and potentially marketing. Upon completion, these courses transfer directly to a four-year university.

At the community college level, and specifically here at Hawkeye Community College, we have the advantage of being able to offer more assistance to our students as our focus is not on research and publications as it is at the university level. Our instructors are generally more available during office hours and outside of them. We also have a dedicated peer tutoring lab with our top-vetted students. One-on-one zoom tutoring is also always an option.

And finally, community college instructors have a greater amount of real industry experience which is incorporated into your coursework. That vocational experience and continued professional development by our faculty ensures that your learning is lining up well with industry expectations. Our primary goal is to prepare you as well as we can for your future career and employers!

## Why Choose a Business Career?

Unless your career goals are specialized, such as health, law, electrician, plumber, etc., a business education suits most people. Most people will either work for a business or start one. Students will learn better professional problem solving, communication, and teamwork skills.

## Transfer Information

Our student services area ensures that you are taking the correct courses for a seamless transfer to your ultimate four-year destination. We work with the three Regent universities within the state of Iowa, namely: University of Northern Iowa, University of Iowa, and Iowa State University. Each has slightly different preparation needs. We also work with private colleges, such as Upper Iowa, in making that transition smooth.

## Planning Your Course Schedule

Students should consult with their Academic/College Success Advisor to select courses, make a transfer plan, and periodically review their progress towards their degree completion.

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

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

## Program Admission

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions
3. Meet basic skill competencies in reading, writing, and math.

# Business Liberal Arts Transfer Major AA Degree Courses

| | |
|---|---|
| **Award** | Associate of Arts (AA) |
| **Credits** | 60 |
| **Enrollment** | Full-time, Part-time |
| **Program Start** | Fall, Spring, Summer |

Courses are subject to change.

- ◆ General education course.
- ► Course has a prerequisite and/or corequisite.
- **O** Course meets 100% online.
- **E** Course meets face-to-face after 5:00pm.

| **Term 1** | | | |
|---|---|---|---|
| ECN-120 | Principles of Macroeconomics ► | 3 | |
| ENG-105 | Composition I ► | 3 | |
| MAT-156 | Statistics ► | 3 | |
| SDV-108 | The College Experience | 1 | |
| | Liberal Arts AA Social Sciences course | 3 | |
| | | **Total Credits 13** | |

| **Term 2** | | | |
|---|---|---|---|
| BUS-210 | Business Statistics ► -OR- | 3 | ◆ |
| BUS-230 | Quantitative Methods for Business Decision Making ► | 3 | ◆ |
| ENG-106 | Composition II ► | 3 | |
| | Liberal Arts AA Humanities course | 3 | |
| | Liberal Arts AA Science course with lab | 4 | |
| | Liberal Arts AA Social Sciences course | 3 | |
| | | **Total Credits 16** | |

| Term 3 | | | |
|---|---|---|---|
| ACC-152 | Financial Accounting ► | 4 | |
| CSC-116 | Information Computing ► | 3 | |
| ECN-130 | Principles of Microeconomics ► | 3 | |
| | Liberal Arts AA Humanities course | 3 | |
| | Liberal Arts AA Individual Development and Well-Being course | 3 | |
| | | **Total Credits 16** | |

| Term 4 | | | |
|---|---|---|---|
| ACC-156 | Managerial Accounting ► | 4 | |
| BUS-183 | Business Law | 3 | |
| SPC-101 | Fundamentals of Oral Communication -OR- | 3 | ◆ |
| SPC-112 | Public Speaking | 3 | ◆ |
| | Liberal Arts AA Elective course | 2 | |
| | Liberal Arts AA Humanities course | 3 | |
| | | **Total Credits 15** | |

# Chemistry Liberal Arts Transfer Major

The chemistry transfer major will allow you to transfer to a public or private four-year college or university to earn a degree in chemistry. Consider chemistry if you are interested in research with industry or government, secondary school teaching, or entering advanced degree programs for practice in some health professions.

## Planning Your Course Schedule

Students should consult with their Academic/College Success Advisor to select courses, make a transfer plan, and periodically review their progress towards their degree completion.

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

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

## Program Admission

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions
3. Meet basic skill competencies in reading, writing, and math.

# Chemistry Liberal Arts Transfer Major AS Degree Courses

| | |
|---|---|
| **Award** | Associate of Science (AS) |
| **Credits** | 60 |
| **Enrollment** | Full-time, Part-time |
| **Program Start** | Fall, Spring, Summer |

Courses are subject to change.

- ◆ General education course.
- ► Course has a prerequisite and/or corequisite.
- **O** Course meets 100% online.
- **E** Course meets face-to-face after 5:00pm.

| **Term 1** | | |
|---|---|---|
| CHM-165 | General Chemistry I ► | 4 |
| ENG-105 | Composition I ► | 3 |
| SDV-108 | The College Experience | 1 |
| | Liberal Arts AS Elective course | 3 |
| | Liberal Arts AS Elective course | 1 |
| | Liberal Arts AS Social Sciences course | 3 |
| | | **Total Credits 15** |

| **Term 2** | | |
|---|---|---|
| CHM-175 | General Chemistry II ► | 4 |
| ENG-106 | Composition II ► | 3 |
| MAT-210 | Calculus I ► | 4 |
| | Liberal Arts AS Elective course | 3 |
| | | **Total Credits 14** |

| Term 3 | | | |
|---|---|---|---|
| CHM-260 | Organic Chemistry I ► | 3 | |
| MAT-216 | Calculus II ► | 4 | |
| | Liberal Arts AS Elective course | 3 | |
| | Liberal Arts AS Elective course | 3 | |
| | Liberal Arts AS Social Sciences course | 3 | |
| | | **Total Credits 16** | |

| Term 4 | | | |
|---|---|---|---|
| CHM-270 | Organic Chemistry II ► | 3 | |
| SPC-101 | Fundamentals of Oral Communication -OR- | 3 | ◆ |
| SPC-112 | Public Speaking | 3 | ◆ |
| | Liberal Arts AS Elective course | 3 | |
| | Liberal Arts AS Elective course | 3 | |
| | Liberal Arts AS Humanities course | 3 | |
| | | **Total Credits 15** | |

# Communication Liberal Arts Transfer Major

A degree in communication prepares students for a variety of careers. Students who study communication are not only highly sought after in fields like marketing and public relations but also in areas you may not immediately think of, such as banking. Communication majors are known for being skillful at taking complex information and making it easy to understand, as well as their ability to connect with others. This makes them highly sought after in many fields.

## Career Opportunities

The following is just a sampling of some of the career opportunities you can pursue with a degree in communications — the sky's the limit!

- Marketing
- Public Relations
- Advertising
- Media
- Writing
- Mass Communication
- Advertising
- Banking
- Real Estate
- Teaching/Training
- Healthcare
- Technology

You may find employment in many industries such as government, business, not-for-profit organizations, education, manufacturing, and politics.

## Planning Your Class Schedule

Students should consult with their Academic/College Success Advisor to select courses, make a transfer plan, and periodically review their progress towards their degree completion.

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

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

## Program Admission

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions
3. Meet basic skill competencies in reading, writing, and math.

# Communication Liberal Arts Transfer Major AA Degree Courses

| | |
|---|---|
| **Award** | Associate of Arts (AA) |
| **Credits** | 60 |
| **Enrollment** | Full-time, Part-time |
| **Program Start** | Fall, Spring, Summer |

Courses are subject to change.

- ◆ General education course.
- ► Course has a prerequisite and/or corequisite.
- **O** Course meets 100% online.
- **E** Course meets face-to-face after 5:00pm.

| **Term 1** | | | |
|---|---|---|---|
| COM-140 | Introduction to Mass Media | 3 | |
| SDV-108 | The College Experience | 1 | |
| SPC-101 | Fundamentals of Oral Communication -OR- | 3 | ◆ |
| SPC-112 | Public Speaking | 3 | ◆ |
| | Liberal Arts AA Elective course | 1 | |
| | Liberal Arts AA Humanities course | 3 | |
| | Liberal Arts AA Social Sciences course | 3 | |
| | | **Total Credits 14** | |

| **Term 2** | | | |
|---|---|---|---|
| ENG-105 | Composition I ► | 3 | |
| SPC-122 | Interpersonal Communication | 3 | |
| | Liberal Arts AA Elective course | 3 | |
| | Liberal Arts AA Humanities course | 3 | |
| | Liberal Arts AA Math course | 3 | |
| | | **Total Credits 15** | |

| Term 3 | | |
|---|---|---|
| ENG-106 | Composition II ► | 3 |
| SPC-120 | Intercultural Communications | 3 |
| SPC-132 | Group Communication | 3 |
| | Liberal Arts AA Math course -OR- | 3 |
| | Liberal Arts AA Science course | 3 |
| | Liberal Arts AA Social Sciences course | 3 |
| | | **Total Credits 15** |

| Term 4 | | |
|---|---|---|
| | Liberal Arts AA Elective course | 3 |
| | Liberal Arts AA Elective course | 3 |
| | Liberal Arts AA Humanities course | 3 |
| | Liberal Arts AA Science course with lab | 4 |
| | Liberal Arts AA Social Sciences course | 3 |
| | | **Total Credits 16** |

# Criminal Justice Liberal Arts Transfer Major

TV shows like CSI, SVU, SWAT, NCIS, and Criminal Minds have captivated audiences worldwide. Their popularity has created a high level of interest for careers in the growing field of criminal justice with a need for individuals possessing skills in computers, science, technology, psychology, and social sciences.

Those who study criminal justice can work in public service in a number of different ways:

- Like biology? Become a lab technician and help solve crimes using DNA, fingerprints, and evidence analysis.
- Like computers? Become a forensic computer investigator and help find children who are trafficked, solve financial crimes, and track criminal enterprises.
- Like psychology? Become an investigator specializing in interview, interrogation, and profiling.
- Like social work? Become a forensic child interviewer and work with Juvenile Court Services or become a victim's advocate or a probation officer.
- Do you have a history of substance abuse and now want to help others kick the habit? You can start your degree here and work toward the treatment sector.

We need ethical people who want to make a difference in our society. We need people like you who are interested in being part of the next generation of criminal justice professionals.

Whether you are just finishing high school or looking for a career change, Hawkeye's Criminal Justice transfer major will start you on your path to earn a Bachelor's Degree in criminal justice.

Join us to see how your unique skills can be used to serve in the field of criminal justice.

## Your Criminal History Matters

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

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

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

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

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

- Felony convictions.
- Domestic abuse convictions.

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

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

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

## Planning Your Course Schedule

Students should consult with their Academic/College Success Advisor to select courses, make a transfer plan, and periodically review their progress towards their degree completion.

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

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

## Program Admission

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions
3. Meet basic skill competencies in reading, writing, and math.

# Criminal Justice Liberal Arts Transfer Major AA Degree Courses

| | |
|---|---|
| **Award** | Associate of Arts (AA) |
| **Credits** | 60 |
| **Enrollment** | Full-time, Part-time |
| **Program Start** | Fall, Spring, Summer |

Courses are subject to change.

- ◆ General education course.
- ► Course has a prerequisite and/or corequisite.
- **O** Course meets 100% online.
- **E** Course meets face-to-face after 5:00pm.

| **Term 1** | | |
|---|---|---|
| CRJ-100 | Introduction to Criminal Justice | 3 |
| ENG-105 | Composition I ► | 3 |
| SDV-108 | The College Experience | 1 |
| SOC-110 | Introduction to Sociology | 3 |
| | Liberal Arts AA Elective course | 1 |
| | Liberal Arts AA Humanities course | 3 |
| | | **Total Credits 14** |

| **Term 2** | | |
|---|---|---|
| CRJ-200 | Criminology | 3 |
| ENG-106 | Composition II ► | 3 |
| MAT-156 | Statistics ► | 3 |
| | Liberal Arts AA Elective course | 3 |
| | Liberal Arts AA Humanities course | 3 |
| | | **Total Credits 15** |

| Term 3 | | | |
|---|---|---|---|
| CRJ-201 | Juvenile Delinquency | 3 | |
| POL-111 | American National Government | 3 | |
| | Liberal Arts AA Elective course | 3 | |
| | Liberal Arts AA Science course with lab | 4 | |
| | Liberal Arts AA Social Sciences course | 3 | |
| | | **Total Credits 16** | |

| Term 4 | | | |
|---|---|---|---|
| SPC-101 | Fundamentals of Oral Communication -OR- | 3 | ◆ |
| SPC-112 | Public Speaking | 3 | ◆ |
| | Liberal Arts AA Elective course | 3 | |
| | Liberal Arts AA Elective course | 3 | |
| | Liberal Arts AA Humanities course | 3 | |
| | Liberal Arts AA Math course -OR- | 3 | |
| | Liberal Arts AA Science course | 3 | |
| | | **Total Credits 15** | |

# Early Childhood and Elementary Education Liberal Arts Transfer Majors

The elementary education and early childhood transfer majors give students an introduction into teaching in pre-K and elementary schools. It is designed for students to complete the first two years of a four-year teaching degree program, earning their Associate of Arts degree in Liberal Arts. Students then transfer to an accredited teacher's education program at a public or private four-year college or university and begin work immediately with their major classes.

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

The early childhood (teacher licensure) transfer major is an introduction to teaching Pre-Kindergarten through grade 3.

The elementary education transfer major is an introduction to teaching grades Kindergarten through grade 6.

Hawkeye provides the introductory education courses, delivered in various modalities including small face-to-face settings, hybrid, and online, that are needed to help you explore the field and build a foundation for the career you want to join. Ultimately, it can help you to decide if this is the career for you.

## Career Opportunities

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

- Public/Private School Teacher
- School Librarian
- School Counselors
- Administrator
- Curriculum Design
- Substitute Teacher
- Marketing
- Technical writer
- Human resources
- Management
- Entrepreneurship
- Grant Writer
- After-School Programs and Youth Organizations
- Writer/Editor
- Government Agencies

## Transfer Information

Articulation agreements provide you the security that your credits will transfer into the major you want to attain. Hawkeye holds articulation agreements with:

- Upper Iowa University
- Northwestern in Orange City
- University of Northern Iowa

## Planning Your Course Schedule

Students should consult with their Academic/College Success Advisor to select courses, make a transfer plan, and periodically review their progress towards their degree completion.

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

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

## Program Admission

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions
3. Meet basic skill competencies in reading, writing, and math.

# Early Childhood Teacher Licensure Transfer Major AA Degree Courses

| | |
|---|---|
| **Award** | Associate of Arts (AA) |
| **Credits** | 62 |
| **Enrollment** | Full-time |
| **Program Start** | Fall, Spring, Summer |
| **Course Format** | Face-to-Face, Hybrid, Online |
| **Class Meets** | Day, evening, or a combination of both to fit your schedule. |

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ► | Course has a prerequisite and/or corequisite. |
| **O** | Course meets 100% online. |
| **E** | Course meets face-to-face after 5:00pm. |

| Early Childhood Teacher Licensure Transfer Courses | | | |
|---|---|---|---|
| EDU-235 | Children's Literature | 3 | |
| EDU-240 | Educational Psychology ► | 3 | |
| EDU-246 | Including Diverse Learners | 3 | |
| EDU-255 | Technology in the Classroom | 3 | |
| EDU-920 | Field Experience ► | 1 | |
| MAT-112 | Math for Elementary Teachers I ► | 3 | |
| POL-111 | American National Government -OR- | O 3 | ◆ |
| HIS-151 | U.S. History to 1877 -OR- | O 3 | ◆ |
| HIS-152 | U.S. History Since 1877 | O 3 | ◆ |
| PSY-121 | Developmental Psychology | 3 | |
| | | **Total Credits 22** | |

| Remaining Liberal Arts Coursework | |
|---|---|
| I. Natural Science and Mathematics<br>A. Biological Sciences<br>B. Physical Sciences | 7 |
| II. Humanities | 9 |
| III. Social Sciences<br>A. People and Their Relationships | 3 |
| IV. Communications | 9 |
| V. Social Diversity | 3 |
| VII. Elective Courses * | 9 |
| **Total Credits** | **40** |

* Students planning to transfer to the University of Northern Iowa should see their advisor for additional course options.

# Elementary Education Liberal Arts Transfer Major AA Degree Courses

| | |
|---|---|
| **Award** | Associate of Arts (AA) |
| **Credits** | 47 |
| **Enrollment** | Full-time, Part-time |
| **Program Start** | Fall, Spring, Summer |

Courses are subject to change.

- ◆ General education course.
- ► Course has a prerequisite and/or corequisite.
- **O** Course meets 100% online.
- **E** Course meets face-to-face after 5:00pm.

| **Term 1** | | | | |
|---|---|---|---|---|
| EDU-210 | Foundations of Education | | 3 | |
| ENG-105 | Composition I ► | | 3 | |
| HIS-151 | U.S. History to 1877 -OR- | O | 3 | ◆ |
| HIS-152 | U.S. History Since 1877 | O | 3 | ◆ |
| PSY-121 | Developmental Psychology | | 3 | |
| SDV-108 | The College Experience | | 1 | |
| | | | **Total Credits 0** | |

| **Term 2** | | |
|---|---|---|
| EDU-235 | Children's Literature | 3 |
| ENG-106 | Composition II ► | 3 |
| | Liberal Arts AA Elective course | 3 |
| | Liberal Arts AA Science course with lab | 4 |
| | Liberal Arts AA Social Sciences course | 3 |
| | **Total Credits 16** | |

| Term 3 | | | |
|---|---|---|---|
| EDU-246 | Including Diverse Learners | 3 | |
| MAT-112 | Math for Elementary Teachers I ► | 3 | |
| | Liberal Arts AA Elective course | 3 | |
| | Liberal Arts AA Elective course | 3 | |
| | Liberal Arts AA Humanities course | 3 | |
| | | **Total Credits 15** | |

| Term 4 | | | |
|---|---|---|---|
| EDU-240 | Educational Psychology ► | 3 | |
| EDU-255 | Technology in the Classroom | 3 | |
| EDU-920 | Field Experience ► | 1 | |
| SPC-101 | Fundamentals of Oral Communication -OR- | 3 | ◆ |
| SPC-112 | Public Speaking | 3 | ◆ |
| | Liberal Arts AA Humanities course | 3 | |
| | Liberal Arts AA Math course | 3 | |
| | Liberal Arts AA Science course | 3 | |
| | | **Total Credits 16** | |

# Exercise Science and Kinesiology Liberal Arts Transfer Major

A career in Exercise Science and Kinesiology aims to improve lifestyles by focusing on prevention and helping to change individual behavior and thought-processes. Options include working with individuals directly or through school and workplace programs.

Students interested in completing a bachelor's degree in Exercise Science and Kinesiology you should consider the Exercise Science and Kinesiology Liberal Arts Transfer Major.

## Planning Your Course Schedule

Students should consult with their Academic/College Success Advisor to select courses, make a transfer plan, and periodically review their progress towards their degree completion.

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

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

## Program Admission

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions
3. Meet basic skill competencies in reading, writing, and math.

# Exercise Science and Kinesiology Liberal Arts Transfer Major AA Degree Courses

| | |
|---|---|
| **Award** | Associate of Arts (AA) |
| **Credits** | 60 |
| **Enrollment** | Full-time, Part-time |
| **Program Start** | Fall, Spring, Summer |

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ► | Course has a prerequisite and/or corequisite. |
| **O** | Course meets 100% online. |
| **E** | Course meets face-to-face after 5:00pm. |

| **Term 1** | | |
|---|---|---|
| BIO-168 | Human Anatomy and Physiology I | 4 |
| ENG-105 | Composition I ► | 3 |
| SDV-108 | The College Experience | 1 |
| | Liberal Arts AA Humanities course | 3 |
| | Liberal Arts AA Social Sciences course | 3 |
| | **Total Credits** | **14** |

| **Term 2** | | |
|---|---|---|
| BIO-173 | Human Anatomy and Physiology II ► | 4 |
| ENG-106 | Composition II ► | 3 |
| | Liberal Arts AA Elective course | 3 |
| | Liberal Arts AA Elective course | 3 |
| | Liberal Arts AA Social Sciences course | 3 |
| | **Total Credits** | **16** |

| Term 3 | | | |
|---|---|---|---|
| BIO-151 | Nutrition | 3 | |
| PHY-162 | College Physics I ► -OR- | 4 | ◆ |
| BIO-105 | Introductory Biology -OR- | 4 | ◆ |
| BIO-112 | General Biology I -OR- | 4 | ◆ |
| PHY-212 | Classical Physics I ► | 5 | ◆ |
| SPC-101 | Fundamentals of Oral Communication -OR- | 3 | ◆ |
| SPC-112 | Public Speaking | 3 | ◆ |
| | Liberal Arts AA Elective course | 3 | |
| | Liberal Arts AA Humanities course | 3 | |
| | | **Total Credits 16** | |

| Term 4 | | | |
|---|---|---|---|
| MAT-156 | Statistics ► | 3 | |
| | Liberal Arts AA Elective course | 3 | |
| | Liberal Arts AA Elective course | 2 | |
| | Liberal Arts AA Humanities course | 3 | |
| | Liberal Arts AA Social Sciences course | 3 | |
| | | **Total Credits 14** | |

# Fine Arts Liberal Arts Transfer Major

If you are interested in completing a bachelor's degree in Fine Arts you should consider the Fine Arts Liberal Arts Transfer Major.

Students interested in Fine Arts will investigate the creative possibilities of a variety of media and process in personal expression ranging from drawing, painting, photography, and design, as well as a contextual perspective of world art and its concepts.

## Career Opportunities

The following are some of the career opportunities you can pursue in Fine or Performing in non-profit, radio/television, museum/gallery, performing arts, education and business sectors:

- Artist
- Animation Artist
- Arts Administrator
- Art Conservationist
- Arts Education Coordinator at an art museum or art center
- Art Handler
- Art Restorer
- Art Therapist
- Biological or Medical Illustrator
- Curator
- Entrepreneur
- Graphic Designer
- Illustrator
- K-12 Art Teacher

## Transfer Information

School of Art Colleges and Universities

- Central College, Art Department
- Coe College, Art and Art History Department
- Cornell College, Department of Art & Art History
- Dordt College, Art & Design Department
- Iowa State University, College of Design
- Luther College, Visual and Performing Arts
- University of Iowa, School of Art and Art History
- University of Northern Iowa, Department of Art
- Upper Iowa University
- Wartburg College, Art Department

## Planning Your Course Schedule

Students should consult with their Academic/College Success Advisor to select courses, make a transfer plan, and periodically review their progress towards their degree completion.

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

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

## Program Admission

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions
3. Meet basic skill competencies in reading, writing, and math.

# Fine Arts Liberal Arts Transfer Major AA Degree Courses

| | |
|---|---|
| **Award** | Associate of Arts (AA) |
| **Credits** | 60 |
| **Enrollment** | Full-time, Part-time |
| **Program Start** | Fall, Spring, Summer |

Courses are subject to change.

- ◆ General education course.
- ► Course has a prerequisite and/or corequisite.
- **O** Course meets 100% online.
- **E** Course meets face-to-face after 5:00pm.

| **Term 1** | | |
|---|---|---|
| ART-133 | Drawing | 3 |
| ART-203 | Art History I | 3 |
| ENG-105 | Composition I ► | 3 |
| SDV-108 | The College Experience | 1 |
| | Liberal Arts AA Humanities course | 3 |
| | Liberal Arts AA Social Sciences course | 3 |
| | | **Total Credits 16** |

| **Term 2** | | |
|---|---|---|
| ART-134 | Drawing II | 3 |
| ART-204 | Art History II | 3 |
| ENG-106 | Composition II ► | 3 |
| | Liberal Arts AA Math course | 3 |
| | Liberal Arts AA Social Sciences course | 3 |
| | | **Total Credits 15** |

| Term 3 | | | |
|---|---|---|---|
| ART-120 | 2-D Design | 3 | |
| SPC-101 | Fundamentals of Oral Communication -OR- | 3 | ◆ |
| SPC-112 | Public Speaking | 3 | ◆ |
| | Liberal Arts AA Elective course | 3 | |
| | Liberal Arts AA Humanities course | 3 | |
| | Liberal Arts AA Science course with lab | 4 | |
| | | **Total Credits 16** | |

| Term 4 | | | |
|---|---|---|---|
| ART-123 | 3-D Design | 3 | |
| | Liberal Arts AA Elective course | 3 | |
| | Liberal Arts AA Elective course | 1 | |
| | Liberal Arts AA Science course -OR- | 3 | |
| | Liberal Arts AA Math course | 3 | |
| | Liberal Arts AA Social Sciences course | 3 | |
| | | **Total Credits 13** | |

# History Liberal Arts Transfer Major

Students studying History will acquire an essential Liberal Arts background preparing them for careers calling for skills in research, analysis, information management, writing, and speaking.

If you are interested in completing a bachelor's degree in History you should consider the History Liberal Arts Transfer Major.

## Career Opportunities

- College educator
- Corporate/organization historian
- Archivist
- Public historian

Find employment in the following sectors:

- Government
- Business
- Museums
- Non-profit organizations
- Education
- Legal profession

Check out the American Historical Association at www.historians.org for more information on history careers.

## Planning Your Course Schedule

Students should consult with their Academic/College Success Advisor to select courses, make a transfer plan, and periodically review their progress towards their degree completion.

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

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

## Program Admission

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions
3. Meet basic skill competencies in reading, writing, and math.

# History Liberal Arts Transfer Major AA Degree Courses

| | |
|---|---|
| **Award** | Associate of Arts (AA) |
| **Credits** | 60 |
| **Enrollment** | Full-time, Part-time |
| **Program Start** | Fall, Spring, Summer |

Courses are subject to change.

- ◆ General education course.
- ► Course has a prerequisite and/or corequisite.
- **O** Course meets 100% online.
- **E** Course meets face-to-face after 5:00pm.

| **Term 1** | | |
|---|---|---|
| ENG-105 | Composition I ► | 3 |
| HIS-151 | U.S. History to 1877 | 3 |
| SDV-108 | The College Experience | 1 |
| | Liberal Arts AA Elective course | 3 |
| | Liberal Arts AA Elective course | 1 |
| | Liberal Arts AA Social Sciences course | 3 |
| | | **Total Credits 14** |

| **Term 2** | | |
|---|---|---|
| ENG-106 | Composition II ► | 3 |
| HIS-152 | U.S. History Since 1877 | 3 |
| | Liberal Arts AA Elective course | 3 |
| | Liberal Arts AA Math course | 3 |
| | Liberal Arts AA Social Sciences course | 3 |
| | | **Total Credits 15** |

| Term 3 | | | |
|---|---|---|---|
| HIS-117 | Western Civilization I: Ancient and Medieval | 3 | |
| SPC-101 | Fundamentals of Oral Communication -OR- | 3 | ◆ |
| SPC-112 | Public Speaking | 3 | ◆ |
| | Liberal Arts AA Elective course | 3 | |
| | Liberal Arts AA Elective course | 3 | |
| | Liberal Arts AA Math course -OR- | 3 | |
| | Liberal Arts AA Science course | 3 | |
| | | **Total Credits 15** | |

| Term 4 | | | | |
|---|---|---|---|---|
| HIS-118 | Western Civilization II: Early Modern -OR- | O E | 3 | ◆ |
| HIS-119 | Western Civilization III: The Modern Period | O E | 3 | ◆ |
| | Liberal Arts AA Elective course | | 3 | |
| | Liberal Arts AA Elective course | | 3 | |
| | Liberal Arts AA Science course with lab | | 4 | |
| | Liberal Arts AA Social Sciences course | | 3 | |
| | | | **Total Credits 16** | |

# Human and Family Services Liberal Arts Transfer Major

Are you interested in exploring and understanding human behaviors, social policy, and social programs? The transfer major in Human and Family Services is intended to prepare students for employment with various types of social agencies. This program is for students interested in transferring to a four-year institution with a major related to Human and Family Services. You will take courses in science, communication, math, humanities, social science and required human services subject areas in preparation to transfer into a bachelor's degree program.

According to the U.S. Bureau of Labor Statistics, the job market for social and human service assistants is expected to grow more than the average growth for all professions. Job growth for every job will be about 7% between 2016 – 2026, but the projected growth for human service assistants is 16%. The Bureau of Labor Statistics suggests that over the next few years, more job opportunities in this field may become available in senior care facilities or in nonprofits that deal with addiction recovery. The agency stresses that the most job opportunities will be accessible for people with postsecondary degrees in social work or human services.

### Career Opportunities

Examples of occupational titles of human service workers/practitioners:

- Case Worker
- Youth Worker
- Residential Counselor
- Case Manager
- Alcohol Counselor
- Drug Abuse Counselor
- Advocate
- Rehabilitation Case Worker
- Halfway House Counselor
- Parole Officer
- Probation Officer
- Special Needs Care
- Home Health Worker
- Child Advocate
- Child Abuse Worker
- Child Support Specialist
- Mental Health Counselor
- Family Support Worker
- Social Service Liaison
- Behavioral Management Assistant
- Eligibility Counselor
- Adult Day Care Worker
- Life Skills Instructor
- Neighborhood Worker
- Group Activities Aide
- Therapeutic Assistant
- Case Monitor
- Juvenile Court Liaison
- Provider Group Home Worker
- Crisis Intervention Counselor
- Community Organizer
- Community Outreach Worker
- Community Action Worker
- Intake Interviewer

## Planning Your Course Schedule

Students should consult with their Academic/College Success Advisor to select courses, make a transfer plan, and periodically review their progress towards their degree completion.

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

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

# Program Admission

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions
3. Meet basic skill competencies in reading, writing, and math.

# Human and Family Services Liberal Arts Transfer Major AA Degree Courses

| | |
|---|---|
| **Award** | Associate of Arts (AA) |
| **Credits** | 60 |
| **Enrollment** | Full-time, Part-time |
| **Program Start** | Fall, Spring, Summer |

Courses are subject to change.

- ◆ General education course.
- ► Course has a prerequisite and/or corequisite.
- **O** Course meets 100% online.
- **E** Course meets face-to-face after 5:00pm.

| **Term 1** | | | | |
|---|---|---|---|---|
| ENG-105 | Composition I ► | | 3 | |
| SDV-108 | The College Experience | | 1 | |
| SOC-110 | Introduction to Sociology | | 3 | |
| SOC-160 | Introduction to Social Work -OR- | O | 3 | ◆ |
| HSV-109 | Introduction to Human Services | O | 3 | ◆ |
| SOC-181 | Field Experience ► | | 1 | |
| | Liberal Arts AA Elective course | | 3 | |
| | | | **Total Credits 14** | |

| **Term 2** | | | |
|---|---|---|---|
| ENG-106 | Composition II ► | 3 | |
| MAT-156 | Statistics ► | 3 | |
| PSY-111 | Introduction to Psychology | 3 | |
| | Liberal Arts AA Elective course | 3 | |
| | Liberal Arts AA Humanities course | 3 | |
| | | **Total Credits 15** | |

| Term 3 | | | |
|---|---|---|---|
| PSY-121 | Developmental Psychology | 3 | |
| SOC-120 | Marriage and Family | 3 | |
| | Liberal Arts AA Elective course | 3 | |
| | Liberal Arts AA Humanities course | 3 | |
| | Liberal Arts AA Science course -OR- | 3 | |
| | Liberal Arts AA Math course | 3 | |
| | | **Total Credits 15** | |

| Term 4 | | | |
|---|---|---|---|
| PSY-261 | Human Sexuality | 3 | |
| SPC-101 | Fundamentals of Oral Communication -OR- | 3 | ◆ |
| SPC-112 | Public Speaking | 3 | ◆ |
| | Liberal Arts AA Elective course | 3 | |
| | Liberal Arts AA Humanities course | 3 | |
| | Liberal Arts AA Science course with lab | 4 | |
| | | **Total Credits 16** | |

# Political Science Liberal Arts Transfer Major

A degree in Political Science offers students a variety of tracks working within public service or the private sector. Options include international affairs, global finance, government service and policy-making, law, and diplomacy. Graduate study in this field will further enhance career opportunities.

Study in Political Science can be readily interfaced with other disciplinary areas. Many successful business persons and community leaders have earned a degree in political science in addition to other fields as well as their work experience.

## Career Opportunities

A degree in Political Science prepares students for successful careers with high employability in a variety of fields, such as those listed below. Graduate study in this field and its various sub-fields (MA/MS, Ph. D., J.D.) will further enhance career opportunities and yield lucrative salaries.

- Law/international law
- Business administration
- Public administration
- Marketing and advertising
- International relations and diplomacy
- Finance/international finance
- Criminal justice
- Military service/officer training
- Non-profit organizations/non-governmental organizations
- Education
- Foreign language and translation services

Find employment in the following sectors:

- Education
- Government
- Non-profit organizations
- Legal profession
- Business

## Political Science Programs In Iowa

Hawkeye Community College has articulation agreements with the University of Iowa, Iowa State University, and the University of Northern Iowa.

The Political Science Liberal Arts transfer major allows for a more seamless transition to your four-year program of study.

See Best Political Science and Government Schools in Iowa to help select a transfer college or university (www.collegefactual.com/majors/social-sciences/political-science-and-government/rankings/top-ranked/the-plains-states/iowa).

## Planning Your Course Schedule

Students should consult with their Academic/College Success Advisor to select courses, make a transfer plan, and periodically review their progress towards their degree completion.

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

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

## Program Admission

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions
3. Meet basic skill competencies in reading, writing, and math.

# Political Science Liberal Arts Transfer Major AA Degree Courses

| | |
|---|---|
| **Award** | Associate of Arts (AA) |
| **Credits** | 60 |
| **Enrollment** | Full-time, Part-time |
| **Program Start** | Fall, Spring, Summer |

Courses are subject to change.

- ◆ General education course.
- ► Course has a prerequisite and/or corequisite.
- **O** Course meets 100% online.
- **E** Course meets face-to-face after 5:00pm.

| **Term 1** | | |
|---|---|---|
| ENG-105 | Composition I ► | 3 |
| POL-111 | American National Government | 3 |
| SDV-108 | The College Experience | 1 |
| | Liberal Arts AA Elective course | 3 |
| | Liberal Arts AA Humanities course | 3 |
| | Liberal Arts AA Social Sciences course | 3 |
| | | **Total Credits 16** |

| **Term 2** | | |
|---|---|---|
| ENG-106 | Composition II ► | 3 |
| MAT-156 | Statistics ► | 3 |
| POL-125 | Comparative Government and Politics | 3 |
| | Liberal Arts AA Elective course | 3 |
| | Liberal Arts AA Math course -OR- | 3 |
| | Liberal Arts AA Science course | 3 |
| | | **Total Credits 15** |

| Term 3 | | | |
|---|---|---|---|
| POL-121 | International Relations | 3 | |
| SPC-101 | Fundamentals of Oral Communication -OR- | 3 | ◆ |
| SPC-112 | Public Speaking | 3 | ◆ |
| | Liberal Arts AA Elective course | 3 | |
| | Liberal Arts AA Elective course | 3 | |
| | Liberal Arts AA Humanities course | 3 | |
| | | **Total Credits 15** | |

| Term 4 | | |
|---|---|---|
| | Liberal Arts AA Elective course | 3 |
| | Liberal Arts AA Elective course | 1 |
| | Liberal Arts AA Humanities course | 3 |
| | Liberal Arts AA Science course with lab | 4 |
| | Liberal Arts AA Social Sciences course | 3 |
| | **Total Credits 14** | |

# Psychology Liberal Arts Transfer Major

Psychology is both a science and a profession. Regardless of your specific career plans, study in Psychology will develop your critical thinking and interpersonal skills and broaden your understanding of research, ethics, and human behavior. Graduate study in this field will further enhance career opportunities.

## Career Opportunities

- Counselor or therapist
- Human resource professional
- School psychologist
- Market researcher
- College educator
- Sports psychologist

Find employment in the following sectors:

- Education
- Non-profit organizations
- Government
- Business
- Health
- Research

The American Psychological Association provides additional information on careers and subfields of Psychology (www.apa.org/education-career/guide/careers).

## Furthering Education in Psychology

- Iowa State University (psychology.iastate.edu)
- University of Iowa (psychology.uiowa.edu)
- University of Northern Iowa (csbs.uni.edu/psychology)

For additional programs and program information, visit Psychology Schools in Iowa at www.psychologydegree411.com.

## Planning Your Course Schedule

Students should consult with their Academic/College Success Advisor to select courses, make a transfer plan, and periodically review their progress towards their degree completion.

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

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

## Program Admission

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions
3. Meet basic skill competencies in reading, writing, and math.

# Psychology Liberal Arts Transfer Major AA Degree Courses

| | |
|---|---|
| **Award** | Associate of Arts (AA) |
| **Credits** | 60 |
| **Enrollment** | Full-time, Part-time |
| **Program Start** | Fall, Spring, Summer |

Courses are subject to change.

- ◆ General education course.
- ► Course has a prerequisite and/or corequisite.
- **O** Course meets 100% online.
- **E** Course meets face-to-face after 5:00pm.

| **Term 1** | | | | |
|---|---|---|---|---|
| ENG-105 | Composition I ► | | 3 | |
| MAT-156 | Statistics ► | | 3 | |
| PSY-111 | Introduction to Psychology | | 3 | |
| SDV-108 | The College Experience | | 1 | |
| | Liberal Arts AA Science course | | 3 | |
| | | **Total Credits** | **13** | |

| **Term 2** | | | | |
|---|---|---|---|---|
| ENG-106 | Composition II ► | | 3 | |
| PHI-101 | Introduction to Philosophy -OR- | O | 3 | ◆ |
| PHI-105 | Introduction to Ethics | O | 3 | ◆ |
| PSY-121 | Developmental Psychology | | 3 | |
| PSY-251 | Social Psychology ► | | 3 | |
| | Liberal Arts AA Elective course | | 3 | |
| | | **Total Credits** | **15** | |

| Term 3 | | | | |
|---|---|---|---|---|
| BIO-105 | Introductory Biology -OR- | | 4 | ◆ |
| BIO-112 | General Biology I -OR- | | 4 | ◆ |
| BIO-113 | General Biology II -OR- | | 4 | ◆ |
| BIO-163 | Essentials of Anatomy and Physiology -OR- | O | 4 | ◆ |
| BIO-168 | Human Anatomy and Physiology I | O E | 4 | ◆ |
| | Liberal Arts AA Elective course | | 3 | |
| | Liberal Arts AA Elective course | | 3 | |
| | Liberal Arts AA Humanities course | | 3 | |
| | Liberal Arts AA Social Sciences course | | 3 | |
| | | | **Total Credits 16** | |

| Term 4 | | | | |
|---|---|---|---|---|
| SPC-101 | Fundamentals of Oral Communication -OR- | | 3 | ◆ |
| SPC-112 | Public Speaking | | 3 | ◆ |
| | Liberal Arts AA Elective course | | 3 | |
| | Liberal Arts AA Elective course | | 3 | |
| | Liberal Arts AA Elective course | | 3 | |
| | Liberal Arts AA Elective course | | 1 | |
| | Liberal Arts AA Humanities course | | 3 | |
| | | | **Total Credits 16** | |

# Social Work Liberal Arts Transfer Major

Study in Social Work will help you gain skills in critical thinking, research methods, understanding the way society works, and understanding the relationship between individuals and the societies in which we live. Social Work emphasizes the importance of social environment as it affects the quality of people's lives. The skills you learn studying Social Work are transferable to many careers.

## Career Opportunities

A Social Work degree prepares students for career opportunities in the public, private, and non-profit sectors. The following are some of the major career fields you can pursue related to Social Work:

- School social work
- Older adults
- Mental health
- Healthcare
- People with disabilities
- Criminal justice/corrections
- Children, youth, and families
- Substance use, abuse, and dependence

The National Association of Social Workers (www.socialworkers.org) and The Best Social Work Jobs (thebestschools.org/careers/career-guide/best-social-work-jobs) also provide additional information on careers in Social Work.

## School of Social Work Colleges and Universities

- Briar Cliff University, Sioux City, IA
- Buena Vista University, Storm Lake, IA
- Clarke University, Dubuque, IA
- Dordt College, Sioux Center, IA
- Loras College, Dubuque, IA
- Luther College, Decorah, IA
- University of Iowa, Iowa City, IA
- University of Northern Iowa, Cedar Falls, IA
- Wartburg University, Waverly, IA
- The Best Online Masters Social Work Degree Programs

## Planning Your Course Schedule

Students should consult with their Academic/College Success Advisor to select courses, make a transfer plan, and periodically review their progress towards their degree completion.

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

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

# Program Admission

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions
3. Meet basic skill competencies in reading, writing, and math.

# Social Work Liberal Arts Transfer Major AA Degree Courses

| | |
|---|---|
| **Award** | Associate of Arts (AA) |
| **Credits** | 60 |
| **Enrollment** | Full-time, Part-time |
| **Program Start** | Fall, Spring, Summer |

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ► | Course has a prerequisite and/or corequisite. |
| **O** | Course meets 100% online. |
| **E** | Course meets face-to-face after 5:00pm. |

| **Term 1** | | |
|---|---|---|
| ENG-105 | Composition I ► | 3 |
| SDV-108 | The College Experience | 1 |
| SOC-110 | Introduction to Sociology | 3 |
| SOC-160 | Introduction to Social Work | 3 |
| SOC-181 | Field Experience ► | 1 |
| | Liberal Arts AA Elective course | 3 |
| | **Total Credits 14** | |

| **Term 2** | | |
|---|---|---|
| ENG-106 | Composition II ► | 3 |
| MAT-156 | Statistics ► | 3 |
| PSY-111 | Introduction to Psychology | 3 |
| | Liberal Arts AA Elective course | 3 |
| | Liberal Arts AA Humanities course | 3 |
| | **Total Credits 15** | |

| Term 3 | | | |
|---|---|---|---|
| BIO-154 | Human Biology | 3 | |
| POL-111 | American National Government | 3 | |
| | Liberal Arts AA Elective course | 3 | |
| | Liberal Arts AA Elective course | 3 | |
| | Liberal Arts AA Humanities course | 3 | |
| | | **Total Credits 15** | |

| Term 4 | | | |
|---|---|---|---|
| SPC-101 | Fundamentals of Oral Communication -OR- | 3 | ◆ |
| SPC-112 | Public Speaking | 3 | ◆ |
| | Liberal Arts AA Elective course | 3 | |
| | Liberal Arts AA Elective course | 3 | |
| | Liberal Arts AA Humanities course | 3 | |
| | Liberal Arts AA Science course with lab | 4 | |
| | | **Total Credits 16** | |

# Sociology Liberal Arts Transfer Major

Are you curious about the world around you — why people, groups, and society in general operate as they do? Do you want to better understand the relationship between individuals and society? Can you see yourself working for social change in ways that positively impacts people's lives? If you've answered yes to these questions, a Sociology degree might be perfect for you!

Sociology is the study of social life, including social influences on human behavior. It is a "21st century career," which provides students an opportunity to build transferable skills such as thinking critically, making evidence-based arguments, employing various research methods, interpreting data, writing effectively, and understanding diverse perspectives (American Sociological Association, 2013).

## What can you do with a sociology degree?

Most people who get a degree in sociology don't become sociologists. The skills you will gain from a sociology degree qualify you for employment in a variety of fields including:

- Government agencies with careers in public health, human resources, urban planning, social services, corrections, etc.
- Non-profit organizations with careers in victim advocacy, youth and leisure services, etc.
- Private sector with careers in marketing, sales, public relations, etc.

Getting a transfer Associate of Arts degree in Sociology at Hawkeye can prepare you for a Bachelor's in Sociology, but students might also choose another major when they transfer. For example, some students end up going into Family, Youth, and Leisure Services, Social Work, Secondary Education, or Gender Studies.

Some people major in sociology in their undergraduate work in preparation for law school or master's degree programs in fields such as Public Policy, Non-Profit Management, or Business Administration.

If you're interested in becoming a sociologist — either to do research, college teaching, or both — you will need to earn at least a Master's degree.

## Earning a Bachelor of Arts / Bachelor of Science (and Beyond) in Sociology

Check out the following nearly transfer institutions to continue your education:

- University of Northern Iowa, Sociology Major (csbs.uni.edu/sac/majors/sociology-major)
- Iowa State, Department of Sociology and Criminal Justice, Sociology program (soc-cj.iastate.edu/majors/sociology-program)
- University of Iowa, College of Liberal Arts and Sciences, Sociology and Criminology (sociology.uiowa.edu)
- Upper Iowa University, Social Sciences program (uiu.edu/academics/programs/social-science)
- Wartburg College, Sociology + Criminal Justice Major (www.wartburg.edu/sociology-criminology)

## Planning Your Course Schedule

Students should consult with their Academic/College Success Advisor to select courses, make a transfer plan, and periodically review their progress towards their degree completion.

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

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

# Program Admission

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions
3. Meet basic skill competencies in reading, writing, and math.

# Sociology Liberal Arts Transfer Major AA Degree Courses

| | |
|---|---|
| **Award** | Associate of Arts (AA) |
| **Credits** | 60 |
| **Enrollment** | Full-time, Part-time |
| **Program Start** | Fall, Spring, Summer |

Courses are subject to change.

- ◆ General education course.
- ► Course has a prerequisite and/or corequisite.
- **O** Course meets 100% online.
- **E** Course meets face-to-face after 5:00pm.

| **Term 1** | | |
|---|---|---|
| ENG-105 | Composition I ► | 3 |
| SDV-108 | The College Experience | 1 |
| SOC-110 | Introduction to Sociology | 3 |
| | Liberal Arts AA Elective course | 3 |
| | Liberal Arts AA Elective course | 1 |
| | Liberal Arts AA Humanities course | 3 |
| | **Total Credits 14** | |

| **Term 2** | | |
|---|---|---|
| ENG-106 | Composition II ► | 3 |
| MAT-156 | Statistics ► | 3 |
| SOC-115 | Social Problems | 3 |
| | Liberal Arts AA Elective course | 3 |
| | Liberal Arts AA Humanities course | 3 |
| | **Total Credits 15** | |

| Term 3 | | | |
|---|---|---|---|
| POL-111 | American National Government | 3 | |
| SOC-120 | Marriage and Family | 3 | |
| SPC-101 | Fundamentals of Oral Communication -OR- | 3 | ◆ |
| SPC-112 | Public Speaking | 3 | ◆ |
| | Liberal Arts AA Elective course | 3 | |
| | Liberal Arts AA Science course | 3 | |
| | | **Total Credits 15** | |

| Term 4 | | | |
|---|---|---|---|
| PSY-251 | Social Psychology ► | 3 | |
| | Liberal Arts AA Elective course | 3 | |
| | Liberal Arts AA Elective course | 3 | |
| | Liberal Arts AA Humanities course | 3 | |
| | Liberal Arts AA Science course with lab | 4 | |
| | | **Total Credits 16** | |

## Career Area

# AGRICULTURE

---

Ag Business Management

Animal Science

Natural Resources

Veterinary Assisting

# Ag Business Management

The Ag Business Management program allows you to learn about all aspects of agriculture, including:

- Agronomy/crop production
- Precision agriculture
- Farm management
- Business
- Animal production

Learn from instructors who bring real-world experience from their education, everyday farming, and professional lives.

## Hands-On Learning Opportunities

- Hawkeye's 225-acre Farm Lab: Learn farm management, animal production, and crop production skills.
- Precision Technology: Use the latest farm equipment and technology, including global positioning systems (GPS), geographic information systems (GIS), and unmanned aerial vehicles in crop production and land management.
- Field Trips: Visit various size farming operations and seed plant production facilities to learn how your skills and knowledge can be applied in a variety of work environments.
- Conferences and Workshops: Expand your knowledge and leadership skills at the Postsecondary Agricultural Student (PAS) Conference, World Food Prize Borlaug Dialogue Symposium, Agribusiness Association of Iowa Showcase, and the Iowa State University Crops Clinics.
- Employment Experience: Gain 320 hours of real-world work experience ensuring you have the skills you need to succeed in your future career.

## Transfer Information

Articulation agreements allow you to transfer your Ag Business Management coursework to Northwest Missouri State University and to the Agricultural Studies, Agricultural Business, and Agronomy programs at Iowa State University. Hawkeye also has transfer relationships with South Dakota State University, University of Wisconsin–Platteville, Upper Iowa University, and Morningside College.

If you plan to transfer, work closely with a program advisor to ensure courses transfer and you meet program requirements.

## Careers

The changing face of agriculture has resulted in new and challenging career opportunities. Graduates work in fields and offices with individual farmers and large farming operations on all aspects of agriculture, including:

- Agriculture technology
- Agriculture production
- Agriculture sales and marketing
- Agriculture finance

Graduates may find working as:

- Agronomy specialists
- Crop scouts

- Equipment/parts assistants
- Grain merchandisers
- Farm and business managers
- GPS/GIS technologists
- Research assistants

### Example Careers and Average Wages

| | Entry | Average | Experienced |
|---|---|---|---|
| **Agricultural Equipment Operators** | $32,500 | $40,400 | $44,300 |
| **Agricultural Technicians** | $31,500 | $45,200 | $52,100 |
| **First-Line Supervisors of Farming, Fishing, and Forestry Workers** | $34,700 | $55,900 | $66,400 |
| **Food Science Technicians** | $33,800 | $42,600 | $47,000 |

*Source: 2022 Iowa Wage Report, Iowa Workforce Development*

### Employers

The following is a partial list of employers who have hired graduates from this program:

| Business | Location |
|---|---|
| Ag Leader Technology | Ames, IA |
| AgVantage FS | Waverly, IA |
| Dupont Pioneer Hi-Bred | Johnston and Reinbeck, IA |
| Mid-Iowa Cooperative | Beaman, IA |
| United Agri Products, Inc. | Winthrop, IA |
| Youngblut Ag | Dysart, IA |

## Program Admission

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions
3. Meet basic skill competencies in reading, writing, and math.

# Ag Business Management AAS Degree Courses

| | |
|---|---|
| **Award** | Associate of Applied Science (AAS) |
| **Credits** | 69 |
| **Program Start** | Fall, Spring, Summer |
| **Time to Complete** | 2 years |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023, Spring 2024, or Summer 2024**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ► | Course has a prerequisite and/or corequisite. |
| **O** | Course meets 100% online. |
| **E** | Course meets face-to-face after 5:00pm. |
| **8WK1** | Course meets the first 8 weeks of the term. |
| **8WK2** | Course meets the second 8 weeks of the term. |

| **Term 1** | | | | |
|---|---|---|---|---|
| AGA-114 | Principles of Agronomy | | 3 | |
| AGC-103 | Ag Computers -OR- | O | 3 | ◆ |
| CSC-110 | Introduction to Computers ► -OR- | O | 3 | ◆ |
| CSC-116 | Information Computing ► | O | 3 | ◆ |
| AGS-113 | Survey of the Animal Industry | | 3 | |
| MAT-772 | Applied Math -OR- | | 3 | |
| | Math Elective | | 3 | |
| | Course from Electives List 1 | | 3 | |
| | Course from Electives List 2 | | 3 | |
| | | | **Total Credits 18** | |

| Term 2 | | | | | |
|---|---|---|---|---|---|
| AGA-376 | Integrated Pest Management | 8WK2 | | 3 | |
| AGA-154 | Fundamentals of Soil Science | | | 3 | |
| AGS-319 | Animal Nutrition -OR- | | | 3 | |
| AGS-216 | Equine Science -OR- | 8WK2 | | 3 | |
| AGS-218 | Domestic Animal Physiology ► -OR- | | | 4 | |
| AGS-225 | Swine Science -OR- | 8WK1 | | 3 | |
| AGS-226 | Beef Cattle Science -OR- | 8WK1 | | 3 | |
| AGS-272 | Foods of Animal Origin ► -OR- | 8WK1 | | 5 | |
| AGS-305 | Livestock Evaluation | | | 3 | |
| SOC-115 | Social Problems -OR- | | O E | 3 | ◆ |
| PSY-111 | Introduction to Psychology -OR- | | O E | 3 | ◆ |
| PSY-102 | Human and Work Relations -OR- | | | 3 | ◆ |
| SOC-110 | Introduction to Sociology | | O | 3 | ◆ |
| SPC-101 | Fundamentals of Oral Communication | | | 3 | |
| | Course from Electives List 2 | | | 3 | |
| | | | **Total Credits** | **18** | |

| Term 3 | | | | | |
|---|---|---|---|---|---|
| ACC-152 | Financial Accounting ► -OR- | | | 4 | |
| ACC-115 | Introduction to Accounting | | | 4 | |
| AGB-235 | Introduction to Agriculture Markets -OR- | | O | 3 | ◆ |
| MKT-110 | Principles of Marketing | | O | 3 | ◆ |
| ENG-105 | Composition I ► -OR- | | | 3 | ▣ |
| COM-781 | Written Communication in the Workplace ► | | | 3 | ▣ |
| | Course from Electives List 1 | | | 3 | |
| | Course from Electives List 2 | | | 3 | |
| | Course from Electives List 3 | | | 3 | |
| | | | **Total Credits** | **19** | |

| Term 4 | | | | | |
|---|---|---|---|---|---|
| AGB-330 | Farm Business Management -OR- | 8WK1 | | 3 | |
| FIN-121 | Personal Finance | | | 3 | |
| AGT-805 | Employment Experience | 8WK2 | | 5 | |
| | Course from Electives List 3 | | | 3 | |
| | Course from Electives List 3 | | | 3 | |
| | | | **Total Credits** | **14** | |

| Electives List 1 | | | |
|---|---|---|---|
| AGA-214 | Cash Grains | | 3 |
| BIO-105 | Introductory Biology | | 4 |
| BIO-112 | General Biology I | | 4 |
| BIO-113 | General Biology II | | 4 |
| CHM-122 | Introduction to General Chemistry ► | | 4 |
| CHM-165 | General Chemistry I ► | | 4 |
| CNS-121 | Environmental Conservation | | 3 |
| ENV-115 | Environmental Science | | 3 |

| Electives List 2 | | | |
|---|---|---|---|
| AGB-303 | Agriculture Leadership | | 3 |
| AGP-333 | Precision Farming Systems | | 3 |
| AGP-340 | Foundations of GIS and GPS | | 3 |
| AGP-436 | Advanced Precision Farming: Hardware | | 3 |
| AGP-450 | Fundamentals of GIS | | 3 |

| Electives List 3 | | | |
|---|---|---|---|
| AGB-331 | Entrepreneurship in Agriculture | 8WK1 | 3 |
| AGB-336 | Agricultural Selling | 8WK1 | 3 |
| AGB-101 | Agricultural Economics | | 3 |
| AGC-999 | Study Abroad | | 3 |
| AGT-928 | Independent Study | | 1 |
| BUS-102 | Introduction to Business | | 3 |
| ECN-110 | Introduction to Economics | | 3 |
| ECN-120 | Principles of Macroeconomics ► | | 3 |
| ECN-130 | Principles of Microeconomics ► | | 3 |
| MGT-101 | Principles of Management | | 3 |
| MKT-140 | Principles of Selling | | 3 |

| Math Electives | |
|---|---|
| MAT-102 Intermediate Algebra | 4 |
| MAT-110 Math for Liberal Arts ► | 3 |
| MAT-121 College Algebra ► | 4 |
| 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 |

# General Agriculture Diploma Courses

| | |
|---|---|
| **Award** | Diploma |
| **Credits** | 36 |
| **Program Start** | Fall, Spring, Summer |
| **Time to Complete** | 1 year |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023, Spring 2024, or Summer 2024**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ► | Course has a prerequisite and/or corequisite. |
| **O** | Course meets 100% online. |
| **E** | Course meets face-to-face after 5:00pm. |
| **8WK1** | Course meets the first 8 weeks of the term. |
| **8WK2** | Course meets the second 8 weeks of the term. |

| **Term 1** | | | | |
|---|---|---|---|---|
| AGA-114 | Principles of Agronomy | | 3 | |
| AGC-103 | Ag Computers -OR- | O | 3 | ◆ |
| CSC-110 | Introduction to Computers ► -OR- | O | 3 | ◆ |
| CSC-116 | Information Computing ► | O | 3 | ◆ |
| AGS-113 | Survey of the Animal Industry | | 3 | |
| ENG-105 | Composition I ► -OR- | | 3 | ▣ |
| COM-781 | Written Communication in the Workplace ► | | 3 | ▣ |
| MAT-772 | Applied Math -OR- | | 3 | |
| | Math Elective | | 3 | |
| | General Agriculture Elective | | 3 | |
| | | | **Total Credits 18** | |

| Term 2 | | | | | |
|---|---|---|---|---|---|
| AGA-376 | Integrated Pest Management | 8WK2 | | 3 | |
| AGA-154 | Fundamentals of Soil Science | | | 3 | |
| AGP-450 | Fundamentals of GIS -OR- | | | 3 | |
| AGB-303 | Agriculture Leadership -OR- | | | 3 | |
| AGP-333 | Precision Farming Systems -OR- | | | 3 | |
| AGP-340 | Foundations of GIS and GPS -OR- | | | 3 | |
| AGP-436 | Advanced Precision Farming: Hardware | | | 3 | |
| AGS-319 | Animal Nutrition -OR- | | | 3 | |
| AGS-216 | Equine Science -OR- | 8WK2 | | 3 | |
| AGS-218 | Domestic Animal Physiology ► -OR- | | | 4 | |
| AGS-225 | Swine Science -OR- | 8WK1 | | 3 | |
| AGS-226 | Beef Cattle Science -OR- | 8WK1 | | 3 | |
| AGS-272 | Foods of Animal Origin ► -OR- | 8WK1 | | 5 | |
| AGS-305 | Livestock Evaluation | | | 3 | |
| PSY-102 | Human and Work Relations -OR- | | O E | 3 | ◆ |
| PSY-111 | Introduction to Psychology -OR- | | O E | 3 | ◆ |
| SOC-110 | Introduction to Sociology -OR- | | O | 3 | ◆ |
| SOC-115 | Social Problems | | O | 3 | ◆ |
| SPC-101 | Fundamentals of Oral Communication | | | 3 | |
| | | | **Total Credits** | **18** | |

| General Agriculture Electives | | |
|---|---|---|
| AGA-214 | Cash Grains | 3 |
| BIO-105 | Introductory Biology | 4 |
| BIO-112 | General Biology I | 4 |
| BIO-113 | General Biology II | 4 |
| CHM-122 | Introduction to General Chemistry ► | 4 |
| CHM-165 | General Chemistry I ► | 4 |
| CNS-121 | Environmental Conservation | 3 |
| ENV-115 | Environmental Science | 3 |

| Math Electives | |
|---|---|
| MAT-102 Intermediate Algebra | 4 |
| MAT-110 Math for Liberal Arts ► | 3 |
| MAT-121 College Algebra ► | 4 |
| 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 |

# Precision Agriculture Certificate Courses

| | |
|---|---|
| **Award** | Certificate |
| **Credits** | 15 |
| **Program Start** | Fall, Spring, Summer |
| **Time to Complete** | 4 months |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023, Spring 2024, or Summer 2024**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

▣ Non-transfer general education course.

| **Term 1** | |
|---|---|
| AGA-114 Principles of Agronomy | 3 |
| | **Total Credits 3** |

| **Term 2** | |
|---|---|
| AGA-154 Fundamentals of Soil Science | 3 |
| AGP-450 Fundamentals of GIS | 3 |
| | **Total Credits 6** |

| **Term 3** | |
|---|---|
| AGP-333 Precision Farming Systems | 3 |
| AGP-436 Advanced Precision Farming: Hardware | 3 |
| | **Total Credits 6** |

# Animal Science

The Animal Science program provides you the opportunity to develop skills and knowledge required to enter a career in animal science or transfer to a four-year college to continue your education.

You will learn the complete life cycle of beef and swine from pasture to plate, and gain hands-on skills and knowledge in:

- Anatomy and physiology
- Animal behavior
- Record keeping
- Proper animal care
- Feeding and nutrition
- Reproduction and reproductive technology
- Production and farm management
- Meat science/butchering

Learn from instructors who bring real-world experience from their education, everyday farming, and professional lives. Instructor certifications include:

- Beef Quality Assurance (BQA)
- Pork Quality Assurance® Plus (PQA Plus)
- Hazard Analysis and Critical Control Points (HACCP)
- ServSafe

## Hands-On Learning Opportunities

- Hawkeye's 225-acre Farm Lab: Work with beef and swine to learn their complete life cycle and as well as production and farm management.
- Meat Lab: Learn how to cut, process, and grade meat; use meat processing equipment including saw, grinder, stuffer, deli slicers, tumbler, and small smokehouse; and USDA sanitation rules and practices.
- Certification: Students will be certified in BQA, PQA Plus ®, Fear Free ®
- Fistulated Steer: Learn about the digestive system, and track, test, and analyze the digestibility and nutrition of food.
- Field Trips: Visit meat processing plants and various size farming operations to learn how your skills and knowledge can be applied in a variety of work environments.
- Conferences: Expand your knowledge and leadership skills at the Postsecondary Agricultural Student (PAS) Conference and the Iowa Pork Congress.
- Employment Experience: Gain 320 hours of real-world work experience ensuring you have the skills you need to succeed in your future career.

## Capstone Experience

The Capstone Experience integrates coursework, knowledge, and experiential learning to enable students to demonstrate a broad knowledge of their studies. Hawkeye's Capstone Experience is taught by an Iowa licensed veterinarian.

## Transfer Information

An articulation agreement allows you to transfer your Animal Science coursework to the Animal Science/Pre-Veterinary Medicine program at Iowa State University. Hawkeye also has transfer relationships with Northwest Missouri State University, South Dakota State University, and University of Wisconsin—Platteville.

If you plan to transfer, work closely with a program advisor to ensure courses transfer and you meet program requirements.

## Careers

Graduates find employment working in:

- Livestock production
- Livestock sales and marketing
- Livestock processing
- Animal genetics
- Small and large farm operations

### Example Careers and Average Wages

| | Entry | Average | Experienced |
|---|---|---|---|
| **Agricultural Inspectors** | $37,100 | $49,300 | $55,400 |
| **Agricultural Technicians** | $31,500 | $45,200 | $52,100 |
| **Animal Breeders** | $22,700 | $39,600 | $48,000 |
| **Farmers, Ranchers, and Other Agricultural Managers** | $36,300 | $67,200 | $82,700 |
| **Farmworkers and Laborers, Crop, Nursery, and Greenhouse** | $22,600 | $29,500 | $32,900 |
| **Farmworkers, Farm, Ranch, and Aquacultural Animals** | $25,200 | $32,900 | $36,800 |
| **Food Science Technicians** | $33,800 | $42,600 | $47,000 |

*Source: 2022 Iowa Wage Report, Iowa Workforce Development*

### Employers

The following is a partial list of employers who have hired graduates from this program:

| Business | Location |
|---|---|
| ADM Alliance Nutrition | Quincy, IL |
| Heartland Co-op | West Des Moines, IA |
| JBS USA | Marshalltown, IA |

| Business | Location |
| --- | --- |
| Tyson Foods, Inc. | Waterloo, IA |
| USDA Food Safety Inspection Service | |
| Westwood Embryo Services | Waverly, IA |

## Program Admission

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions
3. Meet basic skill competencies in reading, writing, and math.

# Animal Science AAS Degree Courses

| | |
|---|---|
| **Award** | Associate of Applied Science (AAS) |
| **Credits** | 69 |
| **Program Start** | Fall, Spring, Summer |
| **Time to Complete** | 2 years |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023, Spring 2024, or Summer 2024**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ▶ | Course has a prerequisite and/or corequisite. |
| **O** | Course meets 100% online. |
| **E** | Course meets face-to-face after 5:00pm. |
| **8WK1** | Course meets the first 8 weeks of the term. |
| **8WK2** | Course meets the second 8 weeks of the term. |

| **Term 1** | | | | |
|---|---|---|---|---|
| AGA-114 | Principles of Agronomy -OR- | | 3 | |
| | Natural Science Elective | | 3 | |
| AGC-103 | Ag Computers | | 3 | |
| AGS-113 | Survey of the Animal Industry | | 3 | |
| PSY-111 | Introduction to Psychology -OR- | | 3 | ◆ |
| PSY-102 | Human and Work Relations -OR- | | 3 | ◆ |
| SOC-110 | Introduction to Sociology -OR- | O | 3 | ◆ |
| SOC-115 | Social Problems | O | 3 | ◆ |
| SPC-101 | Fundamentals of Oral Communication | | 3 | |
| | Animal Science Elective | | 3 | |
| | | | **Total Credits 18** | |

| Term 2 | | | | |
|---|---|---|---|---|
| AGS-225 | Swine Science -OR- | 8WK1 | 3 | |
| AGS-216 | Equine Science -OR- | 8WK1 | 3 | |
| AGS-226 | Beef Cattle Science | 8WK2 | 3 | |
| AGA-154 | Fundamentals of Soil Science -OR- | | 3 | |
| | Natural Science Elective | | 3 | |
| AGS-319 | Animal Nutrition | | 3 | |
| ENG-105 | Composition I ► -OR- | | 3 | ▣ |
| COM-781 | Written Communication in the Workplace ► | | 3 | ▣ |
| MAT-772 | Applied Math -OR- | | 3 | |
| | Math Elective | | 3 | |
| | | **Total Credits** | **15** | |

| Term 3 | | | | |
|---|---|---|---|---|
| ACC-152 | Financial Accounting ► -OR- | | 4 | ▣ |
| ACC-115 | Introduction to Accounting | | 4 | ▣ |
| AGS-211 | Issues Facing Animal Science | | 2 | |
| AGS-218 | Domestic Animal Physiology ► | | 4 | |
| | Animal Science Elective | | 3 | |
| | Animal Science Elective | | 3 | |
| | Natural Science Elective | | 4 | |
| | | **Total Credits** | **20** | |

| Term 4 | | | | |
|---|---|---|---|---|
| AGS-225 | Swine Science -OR- | 8WK1 | 3 | |
| AGS-216 | Equine Science -OR- | 8WK1 | 3 | |
| AGS-226 | Beef Cattle Science | 8WK2 | 3 | |
| AGS-272 | Foods of Animal Origin ► -OR- | 8WK1 | 5 | |
| | Animal Science Electives | | 5 | |
| AGT-805 | Employment Experience | 8WK2 | 5 | |
| | Animal Science Elective | | 3 | |
| | | **Total Credits** | **16** | |

| Animal Science Electives | | | |
|---|---|---|---|
| AGB-330 | Farm Business Management | 8WK1 | 3 |
| AGB-336 | Agricultural Selling | 8WK1 | 3 |
| AGS-225 | Swine Science | 8WK1 | 3 |
| AGS-226 | Beef Cattle Science | 8WK1 | 3 |
| AGV-121 | Veterinary Medical Terminology<br>*Term 1 and Term 3 elective* | 8WK1 | 2 |
| AGA-284 | Pesticide Application Certification | 8WK2 | 3 |
| AGA-376 | Integrated Pest Management | 8WK2 | 3 |
| AGB-303 | Agriculture Leadership | 8WK2 | 3 |
| AGS-216 | Equine Science | 8WK2 | 3 |
| AGV-123 | Companion Animal | 8WK2 | 3 |
| AGA-214 | Cash Grains | | 3 |
| AGB-101 | Agricultural Economics | | 3 |
| AGB-235 | Introduction to Agriculture Markets<br>*Term 3 elective* | | 3 |
| AGC-999 | Study Abroad<br>*Term 4 elective* | | 3 |
| AGP-333 | Precision Farming Systems | | 3 |
| AGP-450 | Fundamentals of GIS | | 3 |
| AGS-275 | Food Safety and Analysis | | 3 |
| AGS-305 | Livestock Evaluation | | 3 |
| AGV-101 | Veterinary Assisting ► | | 3 |
| AGV-140 | Veterinary Pharmacology ► | | 3 |
| AGV-154 | Veterinary Reception and Administration Skills | | 4 |

| Natural Science Electives | | |
|---|---|---|
| BIO-105 | Introductory Biology | 4 |
| BIO-112 | General Biology I | 4 |
| BIO-113 | General Biology II | 4 |
| BIO-151 | Nutrition | 3 |
| BIO-163 | Essentials of Anatomy and Physiology | 4 |
| BIO-168 | Human Anatomy and Physiology I | 4 |
| BIO-186 | Microbiology | 4 |
| CHM-122 | Introduction to General Chemistry ► | 4 |
| CHM-132 | Introduction to Organic and Biochemistry ► | 4 |
| CHM-165 | General Chemistry I ► | 4 |
| CHM-175 | General Chemistry II ► | 4 |
| CNS-121 | Environmental Conservation | 3 |
| ENV-115 | Environmental Science | 3 |
| PHS-120 | Exploring Physical Science ► | 4 |
| PHS-152 | Astronomy ► | 4 |
| PHY-162 | College Physics I ► | 4 |
| PHY-172 | College Physics II ► | 4 |

| Math Electives | | |
|---|---|---|
| MAT-110 | Math for Liberal Arts ► | 3 |
| MAT-121 | College Algebra ► | 4 |
| 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 |

# Meat Science Certificate Courses

| | |
|---|---|
| **Award** | Certificate |
| **Credits** | 24 |
| **Program Start** | Fall, Spring, Summer |
| **Time to Complete** | 9 months |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023, Spring 2024, or Summer 2024**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

- ◆ General education course.
- ► Course has a prerequisite and/or corequisite.
- **O** Course meets 100% online.
- **E** Course meets face-to-face after 5:00pm.

| **Term 1** | | |
|---|---|---|
| AGS-218 | Domestic Animal Physiology ► | 4 |
| AGS-305 | Livestock Evaluation | 3 |
| BIO-186 | Microbiology | 4 |
| | **Total Credits** | **11** |

| **Term 2** | | |
|---|---|---|
| AGS-225 | Swine Science -OR- | 3 |
| AGS-226 | Beef Cattle Science | 3 |
| AGS-272 | Foods of Animal Origin ► | 5 |
| AGT-805 | Employment Experience | 5 |
| | **Total Credits** | **13** |

# Natural Resources Management

The Natural Resources Management program prepares you with the necessary skills and certifications to work in the natural resources field. You will learn about the theories and physical aspects of conservation practices.

## Hands-On Learning Opportunities

- Campus and Community Projects: You will help manage two on-campus ponds and prairies as well as work with community members and conservation agencies on natural resources projects.
- Equipment: Train on a variety equipment, including boats, UTV's, canoes, kayaks, fire equipment, forestry equipment, and electrofishing equipment. You will spend a good portion of your time getting hands-on experience in the field.
- Field Trips and Activities: You will experience a variety of natural resources activities throughout the year, both on and off campus. A trademark of the program is the Advanced Outdoor Recreation Techniques class in which students travel to the Boundary Waters Canoe Wilderness Area or backpacking in wilderness destinations.
- Internship/Employment Experience: Gain 320 hours of real-world work experience ensuring you have the skills you need to succeed in a conservation career.

## Certifications

You may receive the following certifications: Iowa Commercial Pesticide Applicators, First Aid, CPR, National Certified Interpretative Guide, Wilderness First Aid, Boater Safety, ATV Safety, Hunter/Firearm Safety, Leave No Trace Trainer, Leave No Trace Master Educator, S130/S190 Wildland Firefighter, Fish Iowa!, Electrofishing Safety, Chainsaw Safety, and various additional federal certifications.

## Accreditation

The program is accredited by the North American Wildlife Technology Association. Hawkeye is the only college in Iowa to be accredited through the North American Wildlife Technology Association.

This accreditation provides assurance of the context and quality of the education offered. The program is reviewed every five years to maintain accreditation status, ensure curriculum standards are met; and recognize specific knowledge, skill sets, and aptitudes.

## Transfer Information

Articulation agreements allow you to transfer your Natural Resources Management coursework to the Conservation Management program at Upper Iowa University, the Forestry program at Iowa State University, and the Environmental Resource Management program at the University of Northern Iowa.

If you plan to transfer, work closely with a program advisor to ensure courses transfer and you meet program requirements.

## Careers

Careers in Natural Resources Management include:

- Wildlife technician

- Fishery technician
- Park technician
- Naturalist
- Conservation law enforcement
- Roadside manager
- Soil conservation technician
- Environmental consultant
- Forestry

To increase your employment opportunities and be competitive in your future career, it is recommended that you continue to a four-year degree program.

### Example Careers and Average Wages

| | Entry | Average | Experienced |
|---|---|---|---|
| **Forest and Conservation Technicians** | $32,600 | $46,200 | $53,000 |
| **Foresters** | $58,800 | $72,800 | $79,700 |

*Source: 2022 Iowa Wage Report, Iowa Workforce Development*

### Employers

The following is a partial list of employers who have hired graduates from this program:

| Business | Location |
|---|---|
| County Secondary Roads | Many Iowa locations |
| Iowa County Conservation Boards | Many Iowa locations |
| Iowa Department of Natural Resources | Many Iowa locations |
| North Dakota Parks and Recreation | North Dakota |
| Pheasant Forever | Iowa and South Dakota |
| Stantec Environmental Services | Many U.S. locations |
| U.S. Fish and Wildlife Service | Many U.S. locations |
| U.S. Forest Service | Many U.S. locations |
| Wisconsin Department of Natural Resources | Many Wisconsin locations |

## Program Admission

1. Apply for admission at Hawkeye
2. Send official transcripts to Admissions
3. Demonstrate College Readiness

## College Readiness Admission Requirements

In order to be eligible for the Natural Resources Management program, all students must meet minimum score requirements and/or successfully complete the required college success courses in English, reading, and math with a C- grade or higher at Hawkeye Community College or comparable courses at another accredited college. For appropriate college success course placement, work with your program advisor.

| | ALEKS | ACCUPLACER | COMPASS | ACT | ACCUPLACER Next Generation | GPA |
|---|---|---|---|---|---|---|
| **Math** | 6 | 40 Arithmetic | 24 Pre-Algebra | 14 | 240 Arithmetic<br>241 Quantitative Reasoning, Algebra, and Statistics | 2.00 |
| **Reading** | --- | 42 | 47 | 14 | 228 | 2.00 |
| **Writing** | --- | 42 Sentence Skills | 20 | 13 | 229 | 1.00 |

## Program Acceptance

Applicants successfully demonstrating college readiness criteria are eligible for acceptance.

Applicants falling short of successful demonstration of college readiness criteria will be accepted to a Pre-Program. As a pre-program student, you will begin with general education and prerequisite classes. An advisor will help you create an academic plan to meet your program admission requirements. Once you have completed your pre-program coursework contact Admissions.

# Natural Resources Management AAS Degree Courses

| | |
|---|---|
| **Award** | Associate of Applied Science (AAS) |
| **Credits** | 64 |
| **Program Start** | Fall |
| **Time to Complete** | 2 years |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ► | Course has a prerequisite and/or corequisite. |
| **O** | Course meets 100% online. |
| **E** | Course meets face-to-face after 5:00pm. |

| **Term 1** | | | |
|---|---|---|---|
| CNS-107 | Outdoor Recreation Techniques | 1 | |
| CNS-110 | Equipment Operation and Safety | 2 | |
| CNS-121 | Environmental Conservation | 3 | |
| CNS-204 | Native Vegetation | 3 | |
| ENG-105 | Composition I ► -OR- | 3 | ▣ |
| COM-781 | Written Communication in the Workplace ► | 3 | ▣ |
| MAT-156 | Statistics ► -OR- | 3 | |
| | Math Elective | 3 | |
| | | **Total Credits 15** | |

| Term 2 | | | | |
|---|---|---|---|---|
| AGA-154 | Fundamentals of Soil Science -OR- | | 3 | ◆ |
| BIO-113 | General Biology II | | 4 | ◆ |
| AGA-284 | Pesticide Application Certification -OR- | | 3 | ◆ |
| BIO-112 | General Biology I | | 4 | ◆ |
| AGP-340 | Foundations of GIS and GPS | | 3 | |
| CNS-104 | Outdoor Recreation II ► | | 1 | |
| CNS-108 | Wildlife Identification | | 3 | |
| CNS-143 | Fire Management ► | | 3 | |
| CNS-180 | Principles of Interpretation ► -OR- | O E | 2 | ◆ |
| ENG-106 | Composition II ► | O E | 3 | ◆ |
| | | **Total Credits 18** | | |

| Term 3 | | | | |
|---|---|---|---|---|
| CNS-136 | Aquatic Management ► | | 3 | |
| CNS-138 | Woodland Management | | 3 | |
| CNS-205 | Advanced Outdoor Recreation Techniques ► | | 1 | |
| CNS-228 | Natural Areas Management | | 3 | |
| SOC-110 | Introduction to Sociology -OR- | | 3 | ◆ |
| PSY-102 | Human and Work Relations -OR- | | 3 | ◆ |
| PSY-111 | Introduction to Psychology | O E | 3 | ◆ |
| SPC-101 | Fundamentals of Oral Communication | | 3 | |
| | | **Total Credits 16** | | |

| Term 4 | | | | |
|---|---|---|---|---|
| AGT-805 | Employment Experience | | 5 | |
| CNS-109 | Wildlife Ecology ► | | 3 | |
| CNS-134 | Wildlife Management ► | | 4 | |
| CNS-200 | Conservation Biology ► | | 3 | |
| | | **Total Credits 15** | | |

| Math Electives | |
|---|---|
| MAT-102 Intermediate Algebra | 4 |
| MAT-110 Math for Liberal Arts ► | 3 |
| MAT-121 College Algebra ► | 4 |
| MAT-128 Precalculus ► | 4 |
| MAT-134 Trigonometry and Analytic Geometry ► | 3 |
| MAT-210 Calculus I ► | 4 |
| MAT-216 Calculus II ► | 4 |
| MAT-219 Calculus III ► | 4 |
| MAT-772 Applied Math | 3 |

# Natural Resources Aide Certificate Courses

| | |
|---|---|
| **Award** | Certificate |
| **Credits** | 9 |
| **Program Start** | Fall |
| **Time to Complete** | 4 months |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

▣ Non-transfer general education course.
► Course has a prerequisite and/or corequisite.

| **Term 1** | |
|---|---|
| CNS-107 Outdoor Recreation Techniques -OR- | 1 |
| CNS-104 Outdoor Recreation II ► | 1 |
| CNS-110 Equipment Operation and Safety -OR- | 2 |
| CNS-143 Fire Management ► | 3 |
| CNS-121 Environmental Conservation | 3 |
| CNS-204 Native Vegetation -OR- | 3 |
| CNS-108 Wildlife Identification | 3 |
| | **Total Credits 9** |

# Veterinary Assisting

The Veterinary Assisting program, an option of the Animal Science program, provides you the opportunity to develop the skills and knowledge required for an entry-level career as a veterinary assistant.

You will learn to assist veterinarians in the care of cats, dogs, cattle, pigs, and sheep, and gain hands-on skills and knowledge in:

- Front desk operations
- Data entry, inventory, and record keeping
- Basic lab analysis
- Proper restraint of animals during exams and minor procedures
- Medical terminology
- Pharmacology
- Cleaning and sanitation of cages, kennels, exam rooms, and offices

### Hands-On Learning Opportunities

- Hawkeye's 225-acre Farm Lab: Learn kennel management with cats and dogs, as well as clinic operations.
- Classroom Laboratory: Learn specific skills in the use of veterinary laboratory equipment
- Animal Projects: Practice proper handling of animals, which include dogs, cats, pocket pets, reptiles, birds, and livestock animals.
- Dog Simulators: Learn how to perform CPR and proper restraint of animals.
- Field Trips: Visit local veterinary offices to learn how your skills and knowledge can be applied in a variety of work environments.
- Employment Experience: Gain 320 hours of real-world work experience ensuring you have the skills you need to succeed in your future career.
- Certification: Students will become Fear Free ® certified.

## Careers

Graduates can be employed as veterinary assistants or animal caretakers in veterinary clinics, humane societies, or pet stores.

### Example Careers and Average Wages

| | Entry | Average | Experienced |
|---|---|---|---|
| **Veterinary Assistants and Laboratory Animal Caretakers** | $27,300 | $32,500 | $35,100 |

*Source: 2022 Iowa Wage Report, Iowa Workforce Development*

### Employers

The following is a partial list of employers who have hired graduates from this program:

| Business | Location |
| --- | --- |
| Brookside Veterinary Hospital | Cedar Falls, IA |
| Cedar Bend Humane Society | Waterloo, IA |
| Cedar Valley Veterinary Center | Cedar Falls, IA |
| Den Herder Veterinary Hospital | Waterloo, IA |
| Independence Family Animal Care | Independence, IA |
| PetSmart | Waterloo, IA |
| Pet Supplies Plus | Cedar Falls, IA |

## Program Admission

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions
3. Meet basic skill competencies in reading, writing, and math.

# Veterinary Assisting Diploma Courses

| | |
|---|---|
| **Award** | Diploma |
| **Credits** | 41 |
| **Program Start** | Fall, Spring |
| **Time to Complete** | 1 year |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023 or Spring 2024**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ► | Course has a prerequisite and/or corequisite. |
| **O** | Course meets 100% online. |
| **E** | Course meets face-to-face after 5:00pm. |
| **8WK1** | Course meets the first 8 weeks of the term. |
| **8WK2** | Course meets the second 8 weeks of the term. |

| **Term 1** | | |
|---|---|---|
| AGS-211 | Issues Facing Animal Science | 2 |
| AGS-218 | Domestic Animal Physiology ► | 4 |
| AGS-319 | Animal Nutrition | 3 |
| AGV-154 | Veterinary Reception and Administration Skills | 4 |
| | Agriculture Elective | 3 |
| | | **Total Credits 16** |

| Term 2 | | | | |
|---|---|---|---|---|
| AGV-121 | Veterinary Medical Terminology | 8WK1 | 2 | |
| AGV-123 | Companion Animal -OR- | 8WK2 | 3 | |
| AGS-216 | Equine Science -OR- | 8WK2 | 3 | |
| AGS-225 | Swine Science -OR- | 8WK1 | 3 | |
| AGS-226 | Beef Cattle Science | 8WK1 | 3 | |
| AGV-140 | Veterinary Pharmacology ► | | 3 | |
| ENG-105 | Composition I ► -OR- | | 3 | ▣ |
| COM-781 | Written Communication in the Workplace ► | | 3 | ▣ |
| MAT-772 | Applied Math -OR- | | 3 | |
| | Math Elective | | 3 | |
| PSY-111 | Introduction to Psychology -OR- | | 3 | ◆ |
| PSY-102 | Human and Work Relations -OR- | | 3 | ◆ |
| SOC-110 | Introduction to Sociology | O | 3 | ◆ |
| | | **Total Credits** | **17** | |

| Term 3 — Summer | | | | |
|---|---|---|---|---|
| AGT-805 | Employment Experience | | 5 | |
| AGV-101 | Veterinary Assisting ►<br>*Required summer course.* | | 3 | |
| | | **Total Credits** | **8** | |

| Agriculture Electives | | | |
|---|---|---|---|
| AGB-330 | Farm Business Management | 8WK1 | 3 |
| AGB-336 | Agricultural Selling | 8WK1 | 3 |
| AGS-225 | Swine Science | 8WK1 | 3 |
| AGS-226 | Beef Cattle Science | 8WK1 | 3 |
| AGS-272 | Foods of Animal Origin ► | 8WK1 | 5 |
| AGA-376 | Integrated Pest Management | 8WK2 | 3 |
| AGS-216 | Equine Science | 8WK2 | 3 |
| AGA-214 | Cash Grains | | 3 |
| AGB-101 | Agricultural Economics | | 3 |
| AGB-235 | Introduction to Agriculture Markets | | 3 |
| AGB-303 | Agriculture Leadership | | 3 |
| AGB-331 | Entrepreneurship in Agriculture | | 3 |
| AGP-333 | Precision Farming Systems | | 3 |
| AGP-450 | Fundamentals of GIS | | 3 |
| AGS-113 | Survey of the Animal Industry | | 3 |
| AGS-275 | Food Safety and Analysis | | 3 |
| AGS-305 | Livestock Evaluation | | 3 |

| Math Electives | | | |
|---|---|---|---|
| MAT-110 | Math for Liberal Arts ► | | 3 |
| MAT-121 | College Algebra ► | | 4 |
| 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 |

# Career Area

# ARTS

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Digital Mass Media

Graphic Design

Professional Photography

# Digital Mass Media

The Digital Mass Media program prepares you for a career in audio, video, or multimedia production. You will learn to effectively design and deliver a clear message using a variety of digital formats.

Develop a broad knowledge of the digital media industry and gain entry-level skills in:

- Video production
- Audio production
- File and data management
- Storyboarding
- Lighting
- Media writing and scripting
- Video exposure
- Sound modulation
- Color correction

You may choose to focus your coursework in video, audio, or multimedia design.

- In video courses, you will advance your video production, design, scripting, and editing skills. You will also develop special effects and motion graphics and learn various styles of production.

- In audio courses, you will learn audio production, sound mixing and mastering, sound quality, editing, and miking for live and studio recordings.

- In multimedia design courses, you will learn various styles of video production including live event, journalistic, and documentary. You will also learn how to use unmanned aerial vehicles for photography and video, motion control techniques, writing for a variety of formats, and social issues coverage.

## Hands-On Learning Opportunities

- Portfolio: Throughout the program, you will develop audio, video, and multimedia projects to create a digital portfolio. You will have the opportunity to have your portfolio reviewed by industry professionals.

- Industry Technology and Software: Use the latest technology in the industry as you develop your projects, including but not limited to still and video cameras and lenses, stabilization devices, camera cranes and dollies, camera rigging, lighting, wireless and studio microphones, green screens, studio switches, and sound mixing boards. Learn industry standard software including Adobe Creative Cloud.

- Field Trips: Visit advertising agencies, television and video production studios, audio recording studios, and film festivals to learn how your skills and knowledge can be applied in a variety of work environments.

## Transfer Information

The University of Northern Iowa's Department of Applied Engineering and Technical Management has a documented pathway between Hawkeye's Digital Mass Media AAA degree program and UNI's Technology Management Bachelor of Arts degree. Check out UNI's transfer guide at chas.uni.edu/aetm/prospective-students/transfer-students/transfer-guides-hawkeye-community-college to learn more.

If you plan to transfer, work closely with a program advisor to ensure courses transfer and you meet program requirements.

# Careers

Graduates have found work in many environments, including agencies, small businesses, companies, and media outlets working as:

- Multimedia specialists
- Videographers
- Sound technicians
- Video editors
- Freelance videographers
- Camera operators

## Example Careers and Average Wages

| | Entry | Average | Experienced |
|---|---|---|---|
| **Audio and Video Technicians** | $35,100 | $48,000 | $54,400 |
| **Broadcast Technicians** | $21,600 | $43,000 | $53,800 |

*Source: 2022 Iowa Wage Report, Iowa Workforce Development*

## Employers

The following is a partial list of employers who have hired graduates from this program:

| Business | Location |
|---|---|
| Around the Corner Productions | Cedar Falls, IA |
| Go Pro, Inc. | San Mateo, CA |
| InForm Creations | Cedar Falls, IA |
| KWWL Television | Waterloo, IA |
| Mudd Advertising | Cedar Falls, IA |
| KOVR-TV CBS-13 | Sacramento, CA |
| KPTV FOX-12 | Portland, OR |

# Program Admission

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions
3. Meet basic skill competencies in reading, writing, and math.

# Digital Mass Media AAA Degree Courses

| | |
|---|---|
| **Award** | Associate of Applied Arts (AAA) |
| **Credits** | 60 |
| **Program Start** | Fall |
| **Time to Complete** | 2 years |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ► | Course has a prerequisite and/or corequisite. |
| **O** | Course meets 100% online. |
| **E** | Course meets face-to-face after 5:00pm. |

| **Term 1** | | | |
|---|---|---|---|
| ENG-105 | Composition I ► -OR- | 3 | ▣ |
| COM-781 | Written Communication in the Workplace ► | 3 | ▣ |
| MMS-105 | Audio Production | 3 | |
| MMS-111 | Video Production I | 3 | |
| MMS-128 | Digital Print Production | 3 | |
| PHT-108 | Camera I | 3 | |
| | | **Total Credits** | **15** |

| Term 2 | | | | |
|---|---|---|---|---|
| MMS-134 | Media Writing | | 3 | |
| MMS-208 | Sound for Film and Video ► | | 3 | |
| MMS-213 | Video Production II ► -OR- | | 3 | |
| MMS-214 | Audio Production II ► | | 3 | |
| MMS-218 | Editing and Color Grading ► -OR- | | 3 | |
| MMS-219 | Digital Audio Workstation ► | | 3 | |
| SPC-101 | Fundamentals of Oral Communication | | 3 | |
| | | **Total Credits** | **15** | |

| Term 3 | | | | |
|---|---|---|---|---|
| MMS-117 | Social Media for Business | | 3 | |
| MMS-124 | Survey of Commercial Video ► -OR- | | 3 | |
| MMS-320 | Recording Studio I ► | | 3 | |
| MMS-302 | Solo Video Journalism ► -OR- | | 3 | |
| MMS-321 | Electronic Studio Production ► | | 3 | |
| MMS-340 | Live Sound Production ► -OR- | | 3 | |
| MMS-305 | Lighting for Cinematography ► -OR- | | 3 | |
| MMS-905 | Digital Mass Media Internship -OR- | | 3 | |
| MMS-949 | Special Topics | | 3 | |
| PSY-102 | Human and Work Relations -OR- | O E | 3 | ◆ |
| PSY-111 | Introduction to Psychology -OR- | O E | 3 | ◆ |
| SOC-110 | Introduction to Sociology | O | 3 | ◆ |
| | | **Total Credits** | **15** | |

| Term 4 | | | | |
|---|---|---|---|---|
| MAT-772 | Applied Math -OR- | | 3 | |
| | Math Elective | | 3 | |
| MMS-265 | Mass Communications Law | | 3 | |
| MMS-330 | Motion Graphics for Video ► -OR- | | 3 | |
| MMS-425 | Mixing and Mastering Audio ► -OR- | | 3 | |
| MMS-905 | Digital Mass Media Internship -OR- | | 3 | |
| MMS-949 | Special Topics | | 3 | |
| MMS-420 | Recording Studio II ► -OR- | | 3 | |
| MMS-431 | Group Film ► | | 3 | |
| MMS-901 | Portfolio Production | | 3 | |
| | | **Total Credits** | **15** | |

| Math Electives | |
|---|---|
| MAT-102 Intermediate Algebra | 4 |
| MAT-110 Math for Liberal Arts ► | 3 |
| MAT-121 College Algebra ► | 4 |
| MAT-128 Precalculus ► | 4 |
| MAT-134 Trigonometry and Analytic Geometry ► | 3 |
| MAT-156 Statistics ► | 3 |
| MAT-210 Calculus I ► | 4 |

# Graphic Design

The Graphic Design program prepares you for a graphic design career in print, web, and interactive media design. You will develop essential critical and creative thinking skills, fundamentals of design skills, and production technical skills.

Learn all aspects of the design process, including:

- Principles and elements of graphic design
- Print publication design and layout
- Website design and layout
- Interactive media design
- Illustration
- Photo manipulation
- Project management

In graphic design courses, you will learn to design and publish ads, brochures, logos, magazine covers, packaging, posters, vehicle wraps, and other types of multi-panel or multi-page print publications.

In web design courses, you will learn to design and develop responsive and interactive websites displayed on mobile, tablet, and desktop devices using the latest web design technologies.

## Hands-On Learning Opportunities

- Mac Lab: Develop the knowledge and skills needed to use industry standard software, including Adobe Creative Cloud, in your future career.

- Portfolio: Throughout the program, you will develop print and web projects to create traditional and digital portfolios. You will have the opportunity to have your portfolio reviewed by industry professionals.

- Field Trips: Visit advertising agencies, design studios, and printing companies to learn how your skills and knowledge can be applied in a variety of work environments.

## Transfer Information

The University of Northern Iowa's Department of Applied Engineering and Technical Management has a variety of documented pathways between Hawkeye's Graphic Design AAA degree program and a bachelor degree at UNI. Check out UNI's transfer guides at chas.uni.edu/aetm/prospective-students/transfer-students/transfer-guides-hawkeye-community-college for the following programs to learn more:

- Graphic Technology
- Technology Management

Hawkeye also has transfer relationships with Iowa State University, the University of Iowa, Mount Mercy University, Upper Iowa University, Simpson College, and Wartburg College.

If you plan to transfer, work closely with a program advisor to ensure courses transfer and you meet program requirements.

# Careers

Graduates have found work in many environments, including agencies, small businesses, and companies. They work as:

- Advertising designers
- Art directors
- Brand identity designers

- Creative directors
- Freelance designers
- Illustrators
- Layout artists
- Logo designers
- Multimedia designers
- Package designers
- Photo editing / Photoshop artists
- Pre-press technicians
- Publication designers
- Web designers

## Example Careers and Average Wages

| | Entry | Average | Experienced |
|---|---|---|---|
| **Desktop Publishers** | $34,300 | $44,100 | $49,000 |
| **Graphic Designers** | $29,600 | $44,400 | $51,900 |
| **Web and Digital Interface Designers** | $43,400 | $111,200 | $145,100 |
| **Web Developers** | $31,800 | $66,000 | $83,100 |

*Source: 2022 Iowa Wage Report, Iowa Workforce Development*

## Employers

The following is a partial list of employers who have hired graduates from this program:

| Business | Location |
|---|---|
| Almon, Inc. | Dubuque, IA |
| AMPERAGE Marketing | Cedar Falls, IA |
| Jack Henry & Associates, Inc. | Cedar Falls, IA |
| John Deere | Moline, IL |
| J.W. Morton & Associates | Cedar Rapids, IA |
| McCullough Creative | Dubuque, IA |
| Mudd Advertising | Cedar Falls, IA |
| North Forty | Hiawatha, IA |
| Scientific Games Interactive/Williams Interactive SoCaMo | Cedar Falls, IA |
| Spinutech | Cedar Falls, IA |
| VGM Forbin & VGM Creative | Waterloo, IA |

# Program Admission

1. Apply for admission at Hawkeye
2. Send official transcripts to Admissions
3. Demonstrate College Readiness

## College Readiness Admission Requirements

In order to be eligible for the Graphic Design program, all students must meet minimum score requirements and/or successfully complete the required college success courses in English, reading, and math with a C- grade or higher at Hawkeye Community College or comparable courses at another accredited college. For appropriate college success course placement, work with your program advisor.

| | ALEKS | ACCUPLACER | COMPASS | ACT | ACCUPLACER Next Generation | GPA |
|---|---|---|---|---|---|---|
| **Math** | 6 | 40 Arithmetic | 24 Pre-Algebra | 14 | 240 Arithmetic<br>241 Quantitative Reasoning, Algebra, and Statistics | 2.00 |
| **Reading** | --- | 58 | 69 | 16 | 239 | 2.50 |
| **Writing** | --- | 64 Sentence Skills | 41 | 16 | 240 | 2.50 |

## Program Acceptance

Applicants successfully demonstrating college readiness criteria are eligible for acceptance.

Applicants falling short of successful demonstration of college readiness criteria will be accepted to a Pre-Program. As a pre-program student, you will begin with general education and prerequisite classes. An advisor will help you create an academic plan to meet your program admission requirements. Once you have completed your pre-program coursework contact Admissions.

# Graphic Design AAA Degree Courses

| | |
|---|---|
| **Award** | Associate of Applied Arts (AAA) |
| **Credits** | 63 |
| **Program Start** | Fall |
| **Time to Complete** | 2 years |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ► | Course has a prerequisite and/or corequisite. |
| **O** | Course meets 100% online. |
| **E** | Course meets face-to-face after 5:00pm. |

| **Term 1** | | | | |
|---|---|---|---|---|
| COM-781 | Written Communication in the Workplace ► -OR- | O E | 3 | ◆ |
| ENG-105 | Composition I ► | O E | 3 | ◆ |
| GRA-105 | Drawing and Composition -OR- | | 4 | ◆ |
| ART-133 | Drawing * -AND- | | 3 | ◆ |
| ART-134 | Drawing II * | | 3 | ◆ |
| GRA-133 | Desktop Publishing | | 4 | |
| GRA-196 | Design and Layout I ► | | 4 | |
| | | | **Total Credits 15** | |

* Minimum grade of D in both ART-133 and ART-134 is acceptable replacement for GRA-105.

| Term 2 | | | | |
|---|---|---|---|---|
| GRA-124 | Electronic Illustration ► | | 4 | |
| GRA-142 | Graphic Imaging ► | | 4 | |
| GRA-197 | Design and Layout II ► | | 4 | |
| MAT-772 | Applied Math -OR- | | 3 | |
| | Math Elective | | 3 | |
| | | **Total Credits** | **15** | |

| Term 3 | | | | |
|---|---|---|---|---|
| GRA-162 | Web Page Graphics ► | | 3 | |
| GRA-205 | Design and Layout III ► (Offered Fall Only) | | 4 | |
| GRA-238 | Web Design and Layout | | 4 | |
| PSY-102 | Human and Work Relations -OR- | O E | 3 | ◆ |
| PSY-111 | Introduction to Psychology -OR- | O E | 3 | ◆ |
| SOC-110 | Introduction to Sociology | O | 3 | ◆ |
| | Graphic Design Elective | | 3 | |
| | | **Total Credits** | **17** | |

| Term 4 | | | |
|---|---|---|---|
| GRA-160 | Interactive Multimedia ► | | 3 |
| GRA-206 | Advanced Design and Layout ► | | 4 |
| GRA-239 | CMS Web Design ► | | 3 |
| GRA-290 | Portfolio Preparation ► | | 3 |
| SPC-101 | Fundamentals of Oral Communication | | 3 |
| | | **Total Credits** | **16** |

| Graphic Design Electives | | |
|---|---|---|
| ART-101 | Art Appreciation | 3 |
| ART-120 | 2-D Design | 3 |
| ART-143 | Painting | 3 |
| ART-144 | Painting II ► | 3 |
| ART-184 | Photography | 3 |
| ART-203 | Art History I | 3 |
| ART-204 | Art History II | 3 |
| COM-151 | ETC: Art and Literary Magazine | 3 |
| GRA-221 | Principles of Illustration ► | 3 |
| GRA-232 | Photo Direction | 3 |
| GRA-924 | Honors Project | 1 |
| GRA-928 | Independent Study | 1 |
| GRA-932 | Internship | 1 |
| GRA-949 | Special Topics | 1 |
| MKT-110 | Principles of Marketing | 3 |

| Math Electives | | |
|---|---|---|
| MAT-110 | Math for Liberal Arts ► | 3 |
| MAT-121 | College Algebra ► | 4 |
| 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 |

# Professional Photography

The Professional Photography program prepares you to start a career as a professional photographer. In today's market, it takes more to be a professional photographer than just taking a pretty picture. Taught by experienced industry professionals, you will learn the foundational concepts, techniques, and processes that have been used by photographers from the earliest days of photography through today. You will also learn and explore the art, craft, and business of photography.

Hawkeye's Professional Photography program is recognized as one of the best in the Midwest.

## Hands-On Learning Opportunities

- Equipment Checkout: Hawkeye offers a large selection of lenses and photography equipment including light kits, backgrounds, props, furniture, and more for you to check out at no cost.
- Darkroom: Learn to develop analog photography from 35mm up to 8" x 10" images.
- Photo Imaging Lab: Develop photography production and editing skills using industry standard software, including Adobe Photoshop.
- Computer Lab: In our high end computer labs you will learn on software that the professionals are using.
- Photo Studios: Work in one of Hawkeye's five fully-equipped photography studios to complete assignments and build a portfolio.
- Portfolio: You will develop print and digital photography portfolios. You will have the opportunity to have your portfolio reviewed by industry professionals.
- Field Trips: During our annual professional trip we travel all over Iowa and to neighboring states to visit portrait studios, commercial studios, and cultural centers. Students get a first hand view of what it's like working in the industry and learn how their skills and knowledge can be applied in a variety of work environments.
- Professional Conventions: Students have the opportunity to attend the Professional Photographers of Iowa Winter Convention. Attend presentations from industry experts and make valuable contacts with professionals. Students can also participate in the photo competition to be judged right along with the professionals.
- Photography Club: As a part of this student organization you can learn from a variety of real-world experiences while giving back to the community.

## Professional Affiliation

Our program is the only program in Iowa recognized by the Professional Photographers of America and the Professional Photographers of Iowa. Graduates earn three merits towards their Master Photographer designation from the Professional Photographers of America.

## Transfer Information

The University of Northern Iowa's Department of Applied Engineering and Technical Management has a documented pathway between Hawkeye's Professional Photography AAA degree program and UNI's Technology Management Bachelor of Arts degree. Check out UNI's transfer guide at chas.uni.edu/aetm/prospective-students/transfer-students/transfer-guides-hawkeye-community-college to learn more.

If you plan to transfer, work closely with a program advisor to ensure courses transfer and you meet program requirements.

# Careers

Graduates find jobs in professional photography studios and color labs, corporate photography departments, and advertising agencies. Many graduates also go on to start their own photography business or do freelance work.

## Example Careers and Average Wages

| | Entry | Average | Experienced |
|---|---|---|---|
| **Photographers** | $22,100 | $37,800 | $45,700 |

*Source: 2022 Iowa Wage Report, Iowa Workforce Development*

*Independent contractors and business owner salaries may be higher based on graduate and advisory member surveys.*

## Employers

The following is a partial list of employers who have hired graduates from this program:

| Business | Location |
|---|---|
| DC Shoes, Inc. | Huntington Beach, CA |
| John Deere | Moline, IL |
| Meredith Corporation | Des Moines, IA |
| Read Photography | Cedar Rapids, IA |
| Stalzer Photography | Marshalltown, IA |

# Program Admission

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions
3. Meet basic skill competencies in reading, writing, and math.

# Professional Photography AAA Degree Courses

| | |
|---|---|
| **Award** | Associate of Applied Arts (AAA) |
| **Credits** | 66 |
| **Program Start** | Fall |
| **Time to Complete** | 2 years |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ► | Course has a prerequisite and/or corequisite. |
| **O** | Course meets 100% online. |
| **E** | Course meets face-to-face after 5:00pm. |

| **Term 1** | | | | |
|---|---|---|---|---|
| MAT-772 | Applied Math -OR- | | 3 | |
| | Math Elective | | 3 | |
| PHT-102 | Photo Design I | | 3 | |
| PHT-106 | Introduction to Image Editing | | 3 | |
| PHT-108 | Camera I | | 3 | |
| PHT-109 | Print I ► | | 3 | |
| PSY-102 | Human and Work Relations -OR- | O E | 3 | ◆ |
| PSY-111 | Introduction to Psychology -OR- | O E | 3 | ◆ |
| SOC-110 | Introduction to Sociology | O | 3 | ◆ |
| | | **Total Credits** | **18** | |

| Term 2 | | | | |
|---|---|---|---|---|
| COM-781 | Written Communication in the Workplace ► -OR- | O E | 3 | ◆ |
| ENG-105 | Composition I ► | O E | 3 | ◆ |
| PHT-110 | Camera II ► | | 3 | |
| PHT-111 | Print II ► | | 3 | |
| PHT-202 | Basic Portraiture ► | | 3 | |
| PHT-204 | Basic Commercial Photography ► | | 3 | |
| PHT-212 | Intermediate Electronic Imaging ► | | 3 | |
| | | | **Total Credits 18** | |

| Term 3 | | | |
|---|---|---|---|
| PHT-215 | Portrait Image Editing ► -OR- | | 3 |
| PHT-216 | Commercial Image Editing ► | | 3 |
| PHT-220 | Intermediate Portraiture ► -OR- | | 3 |
| PHT-227 | Intermediate Commercial ► | | 3 |
| PHT-241 | Portrait Business ► -OR- | | 3 |
| PHT-248 | Commercial Business ► | | 3 |
| SPC-101 | Fundamentals of Oral Communication | | 3 |
| | Term 3 Elective | | 3 |
| | Term 3 Elective | | 3 |
| | | **Total Credits 18** | |

| Term 4 | | | |
|---|---|---|---|
| PHT-217 | Advanced Portrait Image Editing ► -OR- | | 3 |
| PHT-218 | Advanced Commercial Image Editing ► | | 3 |
| PHT-240 | Portrait Production and Portfolio ► -OR- | | 3 |
| PHT-247 | Commercial Production and Portfolio ► | | 3 |
| | Term 4 Elective | | 3 |
| | Term 4 Elective | | 3 |
| | | **Total Credits 12** | |

| Electives — Term 3 | |
|---|---|
| PHT-210 Visual Communication | 3 |
| PHT-215 Portrait Image Editing ► | 3 |
| PHT-216 Commercial Image Editing ► | 3 |
| PHT-220 Intermediate Portraiture ► | 3 |
| PHT-227 Intermediate Commercial ► | 3 |
| PHT-241 Portrait Business ► | 3 |
| PHT-248 Commercial Business ► | 3 |
| PHT-253 Art Direction ► | 3 |
| PHT-928 Photography Independent Study | 1 |

| Electives — Term 4 | |
|---|---|
| PHT-217 Advanced Portrait Image Editing ► | 3 |
| PHT-218 Advanced Commercial Image Editing ► | 3 |
| PHT-240 Portrait Production and Portfolio ► | 3 |
| PHT-242 Audio Visual Presentations ► | 3 |
| PHT-244 Wedding Photography ► | 4 |
| PHT-245 History of Photography | 3 |
| PHT-247 Commercial Production and Portfolio ► | 3 |
| PHT-249 Advanced Commercial Lighting ► | 3 |
| PHT-251 Fine Art Photography ► | 3 |
| PHT-928 Photography Independent Study | 1 |

| Math Electives | |
|---|---|
| MAT-110 Math for Liberal Arts ► | 3 |
| MAT-121 College Algebra ► | 4 |
| 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 |

## Career Area

# AUTOMOTIVE AND TRANSPORTATION

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Auto Collision Technologies

Automotive Technology

Diesel Technology

# Auto Collision Technologies

The Auto Collision Technologies program prepares students with the training and knowledge for an entry-level position in the auto collision industry. During the first year of the program students are provided with hands-on training in collision repair. Those who continue to the second year of the program will also gain skills in vehicle repair and maintenance.

## Hands-On Learning Opportunities

- Virtual Paint System: Learn a variety of paint techniques, how to reduce costs and paint waste, and improve your efficiency on this state-of-the-art system.

- Collision Lab and Paint Booths: Use the tools and equipment of the industry to work on a variety of different vehicle makes and models and learn to adapt to the industry's changing technology. Gain real-world experience working on customer vehicles.

## Certifications

Students will have the opportunity to gain industry certifications in various areas throughout this program including:

- I-Car Platinum Non-Structural Technician ProLevel 1
- I-Car Platinum Refinish Technician ProLevel 1
- I-CAR Welding Certification
- Air Conditioning, Painter

## Transfer Information

Many four-year colleges and universities accept a limited number of transfer and elective credits.

The University of Northern Iowa's Department of Applied Engineering and Technical Management has a documented pathway between Hawkeye's Auto Collision Technologies AAS degree program and UNI's Technology Management Bachelor of Arts degree. Check out UNI's transfer guide at chas.uni.edu/aetm/prospective-students/transfer-students/transfer-guides-hawkeye-community-college to learn more.

If you plan to transfer, work closely with a program advisor to ensure courses transfer and you meet program requirements.

# Careers

Graduates find work in collision repair centers and auto body shops doing vehicle restoration, collision repair and refinishing, body repair, and automotive customization. Positions include but are not limited to:

- Auto body specialists and technicians
- Auto refinisher
- Auto frame/unibody technicians and specialists
- Painters
- Parts manager
- Auto body product salespersons
- Collision specialist
- Estimator

With additional coursework and experience, graduates have become:

- Body shop managers
- Auto insurance adjusters
- Auto appraisers

### Example Careers and Average Wages

| | Entry | Average | Experienced |
|---|---|---|---|
| **Automotive Body and Related Repairers *** | $33,200 | $48,900 | $56,800 |
| **Automotive Glass Installers and Repairers** | $32,400 | $42,700 | $47,800 |
| **Insurance Appraisers, Auto Damage** | $44,600 | $48,200 | $50,100 |

*Source: 2022 Iowa Wage Report, Iowa Workforce Development*

* Automotive Body and Related Repairers wages are based on an hourly wage. Most shops pay on commission base. When working on commission, technicians may be compensated on a per job basis and earn $75,000 – $120,000 per year.

### Employers

The following is a partial list of employers who have hired graduates from this program:

| Business | Location |
|---|---|
| Anderson Collision Center | Cedar Falls, IA |
| Billion Auto | Clive, IA |
| Clemons Chevrolet | Marshalltown, IA |
| Deery Brothers Collision Center | Cedar Falls, IA |
| Dunlap Motors | Independence, IA |
| Iowa Auto Rebuilders | Waterloo, IA |
| Rydell Chevrolet | Waterloo, IA |
| Tophat Automotive Syndicate | Evansdale, IA |
| Witham Auto Centers | Waterloo, IA |

## Program Admission

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions
3. Meet basic skill competencies in reading, writing, and math.

# Auto Collision Technologies AAS Degree Courses

| | |
|---|---|
| **Award** | Associate of Applied Science (AAS) |
| **Credits** | 84 |
| **Program Start** | Fall |
| **Time to Complete** | 2 years |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ► | Course has a prerequisite and/or corequisite. |
| **4WK1** | Course meets the first 4 weeks of the term. |
| **4WK2** | Course meets the second 4 weeks of the term. |
| **4WK3** | Course meets the third 4 weeks of the term. |
| **4WK4** | Course meets the last 4 weeks of the term. |

| **Term 1** | | | | |
|---|---|---|---|---|
| CRR-821 | Introduction to Refinishing I | 4WK1 | 3 | |
| CRR-822 | Introduction to Refinishing II ► | 4WK2 | 3 | |
| CRR-304 | Introduction to Collision Repair | 4WK3 | 4 | |
| CRR-361 | Collision Lab I ► | 4WK4 | 4 | |
| COM-781 | Written Communication in the Workplace ► -OR- | | 3 | ◆ |
| ENG-105 | Composition I ► | | 3 | ◆ |
| MAT-772 | Applied Math -OR- | | 3 | |
| | Math Elective | | 3 | |
| | | **Total Credits** | **20** | |

| Term 2 | | | | |
|---|---|---|---|---|
| CRR-874 | Advanced Refinishing | 4WK1 | 4 | |
| CRR-886 | Advanced Refinishing II ► | 4WK2 | 4 | |
| CRR-658 | Advanced Collision Repair | 4WK3 | 4 | |
| CRR-659 | Advanced Collision Production Tech | 4WK4 | 4 | |
| CRR-751 | Electronic Estimating | | 2 | |
| | | | **Total Credits 18** | |

| Term 3 — Summer | | | | |
|---|---|---|---|---|
| CRR-879 | Refinishing Production Technician | 4WK1 | 4 | |
| CRR-511 | Collision Production Technician | 4WK2 | 4 | |
| | | | **Total Credits 8** | |

| Term 4 | | | | |
|---|---|---|---|---|
| AUT-106 | Introduction to Automotive Technology | 4WK1 | 2 | |
| AUT-109 | Introduction to Automotive Technology II | 4WK1 | 2 | |
| AUT-643 | Auto Starting, Charging, and Electrical | 4WK2 | 4 | |
| AUT-504 | Automotive Brake Systems | 4WK3 | 4 | |
| AUT-537 | Automotive Advanced Brake Systems | 4WK4 | 4 | |
| SPC-101 | Fundamentals of Oral Communication -OR- | | 3 | ◆ |
| SPC-112 | Public Speaking | | 3 | ◆ |
| | | | **Total Credits 19** | |

| Term 5 | | | | |
|---|---|---|---|---|
| AUT-404 | Automotive Suspension and Steering | 4WK1 | 4 | |
| AUT-307 | Automotive Manual Transmissions and Transaxles | 4WK2 | 4 | |
| AUT-842 | Automotive Computerized Engine Controls | 4WK3 | 4 | |
| AUT-704 | Automotive Heating and Air Conditioning | 4WK4 | 4 | |
| PSY-102 | Human and Work Relations -OR- | | 3 | ◆ |
| PSY-111 | Introduction to Psychology -OR- | | 3 | ◆ |
| SOC-110 | Introduction to Sociology | | 3 | ◆ |
| | | | **Total Credits 19** | |

| Math Electives | |
|---|---|
| MAT-110 Math for Liberal Arts ► | 3 |
| MAT-121 College Algebra ► | 4 |
| 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 |

# Collision Repair and Refinishing Diploma Courses

| | |
|---|---|
| **Award** | Diploma |
| **Credits** | 43 |
| **Program Start** | Fall |
| **Time to Complete** | 1 year |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ► | Course has a prerequisite and/or corequisite. |
| **4WK1** | Course meets the first 4 weeks of the term. |
| **4WK2** | Course meets the second 4 weeks of the term. |
| **4WK3** | Course meets the third 4 weeks of the term. |
| **4WK4** | Course meets the last 4 weeks of the term. |

| **Term 1** | | | |
|---|---|---|---|
| CRR-821 | Introduction to Refinishing I | 4WK1 | 3 |
| CRR-822 | Introduction to Refinishing II ► | 4WK2 | 3 |
| CRR-304 | Introduction to Collision Repair | 4WK3 | 4 |
| CRR-361 | Collision Lab I ► | 4WK4 | 4 |
| MAT-772 | Applied Math -OR- | | 3 |
| | Math Elective | | 3 |
| | | | **Total Credits 17** |

| Term 2 | | |
|---|---|---|
| CRR-874 Advanced Refinishing | 4WK1 | 4 |
| CRR-886 Advanced Refinishing II ► | 4WK2 | 4 |
| CRR-658 Advanced Collision Repair | 4WK3 | 4 |
| CRR-659 Advanced Collision Production Tech | 4WK4 | 4 |
| CRR-751 Electronic Estimating | | 2 |
| | **Total Credits** | **18** |

| Term 3 — Summer | | |
|---|---|---|
| CRR-879 Refinishing Production Technician | 4WK1 | 4 |
| CRR-511 Collision Production Technician | 4WK2 | 4 |
| | **Total Credits** | **8** |

| Math Electives | |
|---|---|
| MAT-110 Math for Liberal Arts ► | 3 |
| MAT-121 College Algebra ► | 4 |
| 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 |

# Automotive Technology

The Automotive Technology program prepares you for an entry-level career in automotive and vehicle repair, maintenance, and troubleshooting. You will gain hands-on skills in:

- Automotive electronics
- Testing and diagnosing
- Engine drivability diagnosis and performance
- Automatic transmissions
- Gas engines
- Suspension
- Alignment
- Brakes

## Hands-On Learning Opportunities

- Automotive Lab: Use the latest systems, tools, and diagnostic equipment in the industry to work on a variety of different vehicle makes and models. Learn to adapt to changing technology as vehicle components and systems become increasingly sophisticated. Learn with your hands, not in a seat.

- Advanced Driver Assistance Systems (ADAS) equipment: Train on Hawkeye's state of the art Advanced Driver Assistance Systems (ADAS) equipment to learn about Semi-Autonomous cars and calibrating them correctly.

- 2WD Dynojet Chassis Dyno: Assists students in shop work on driveability, diagnostics, and other related work.

- ASE style curriculum and tailor in the FORD ACE Training program brought upon by Colwell Ford and Witham Ford for brand specific training for students that choose to follow that path.

- The newest of tire changing and balancing equipment along with the industry standard Hunter Alignment machines.

## Certifications

Students can gain several certifications such as NC3- Snap On Meter, Diagnostics, Service Information, On-Car NC3 Procut Brake lathe, and EPA 609 Refrigerant recovery and recycling certifications.

## Accreditation

The Automotive Technology program meets the strict industry standards required for accreditation in Master Automobile Service Technology – the highest level of program accreditation recognized by the National Institute for Automotive Service Excellence (ASE).

## Transfer Information

The University of Northern Iowa's Department of Applied Engineering and Technical Management has a documented pathway between Hawkeye's Automotive Technology AAS degree program and UNI's Technology Management Bachelor of Arts degree. Check out UNI's transfer guide at chas.uni.edu/aetm/prospective-students/transfer-students/transfer-guides-hawkeye-community-college to learn more.

If you plan to transfer, work closely with a program advisor to ensure courses transfer and you meet program requirements.

# Careers

Graduates find employment at automotive dealerships, independent automotive shops, service stations, car manufacturers, and national automotive service centers. Positions include but are not limited to:

- Automotive service technician
- Electronics installer
- Electronics technician
- Mechanic
- Service writer
- Service manager
- Truck technician

## Example Careers and Average Wages

| | Entry | Average | Experienced |
|---|---|---|---|
| **Automotive Service Technicians and Mechanics** | $28,400 | $44,400 | $52,500 |
| **Electronic Equipment Installers and Repairers, Motor Vehicles** | $18,800 | $30,700 | $36,600 |

*Source: 2022 Iowa Wage Report, Iowa Workforce Development*

## Employers

The following is a partial list of employers who have hired graduates from this program:

| Business | Location |
|---|---|
| Advanced Automotive | Evansdale |
| Colwell Ford | Waterloo |
| C&S Subaru Hyundai | Waterloo |
| Dan Deery Toyota | Cedar Falls |
| Davis Farm and Auto | Denver |
| Jim Lind Service | Waterloo |
| John Deery Nissan | Cedar Falls |
| Rydell Chevrolet and Dodge | Waterloo |
| Schuermans Automotive | Cedar Falls |
| Tandem Tire | Cedar Falls |
| Witham Auto Centers | Cedar Falls, La Porte City, Waterloo |

# Program Admission

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions
3. Meet basic skill competencies in reading, writing, and math.

# Automotive Technology AAS Degree Courses

| | |
|---|---|
| **Award** | Associate of Applied Science (AAS) |
| **Credits** | 76 |
| **Program Start** | Fall |
| **Time to Complete** | 2 years |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ▶ | Course has a prerequisite and/or corequisite. |
| **O** | Course meets 100% online. |
| **E** | Course meets face-to-face after 5:00pm. |
| **4WK1** | Course meets the first 4 weeks of the term. |
| **4WK2** | Course meets the second 4 weeks of the term. |
| **4WK3** | Course meets the third 4 weeks of the term. |
| **4WK4** | Course meets the fourth 4 weeks of the term. |

| Term 1 | | | | | |
|---|---|---|---|---|---|
| AUT-106 | Introduction to Automotive Technology | 4WK1 | | 2 | |
| AUT-109 | Introduction to Automotive Technology II | 4WK1 | | 2 | |
| AUT-643 | Auto Starting, Charging, and Electrical | 4WK2 | | 4 | |
| AUT-504 | Automotive Brake Systems | 4WK3 | | 4 | |
| AUT-537 | Automotive Advanced Brake Systems | 4WK4 | | 4 | |
| MAT-772 | Applied Math -OR- | | | 3 | |
| | Math Elective | | | 3 | |
| | | | **Total Credits** | **19** | |

| Term 2 | | | | | |
|---|---|---|---|---|---|
| AUT-404 | Automotive Suspension and Steering | 4WK1 | | 4 | |
| AUT-307 | Automotive Manual Transmissions and Transaxles | 4WK2 | | 4 | |
| AUT-842 | Automotive Computerized Engine Controls | 4WK3 | | 4 | |
| AUT-704 | Automotive Heating and Air Conditioning | 4WK4 | | 4 | |
| PSY-102 | Human and Work Relations -OR- | | O E | 3 | ◆ |
| PSY-111 | Introduction to Psychology -OR- | | O E | 3 | ◆ |
| SOC-110 | Introduction to Sociology | | O | 3 | ◆ |
| | | | **Total Credits** | **19** | |

| Term 3 | | | | | |
|---|---|---|---|---|---|
| AUT-164 | Automotive Engine Repair | 4WK1 | | 4 | |
| AUT-631 | Automotive Electronics | 4WK2 | | 4 | |
| AUT-610 | Automotive Electrical I | 4WK3 | | 4 | |
| AUT-204 | Automotive Automatic Transmissions and Transaxles | 4WK4 | | 4 | |
| COM-781 | Written Communication in the Workplace ► -OR- | | O E | 3 | ◆ |
| ENG-105 | Composition I ► | | O E | 3 | ◆ |
| | | | **Total Credits** | **19** | |

| Term 4 | | | |
|---|---|---|---|
| AUT-886 | Comprehensive Application ► | 4WK1 | 4 |
| AUT-834 | Automotive Fuel Systems | 4WK2 | 4 |
| AUT-827 | Automotive Ignition Systems ► | 4WK3 | 4 |
| AUT-315 | Automotive Differentials and 4-Wheel Drive | 4WK4 | 4 |
| SPC-101 | Fundamentals of Oral Communication | | 3 |
| | | **Total Credits** | **19** |

| Math Electives | | |
|---|---|---|
| MAT-110 | Math for Liberal Arts ► | 3 |
| MAT-121 | College Algebra ► | 4 |
| 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 Technology

The Diesel Technology program prepares students to become proficient in service and repair of diesel powered equipment. Types of equipment included are agricultural, construction, 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.

## Hands-On Learning Opportunities

- Latest Equipment: Work on the latest systems and equipment in the industry as well a variety of different makes and models of equipment.
- Simulators: Practice your electrical and hydraulic skills in a variety of scenarios in a controlled environment.
- Partnership with Freightliner: Through this partnership, you will gain the same hands-on training and knowledge as a Freightliner technician.

## Transfer Information

The University of Northern Iowa's Department of Applied Engineering and Technical Management has a documented pathway between Hawkeye's Diesel Technology AAS degree program and UNI's Technology Management Bachelor of Arts degree. Check out UNI's transfer guide at chas.uni.edu/aetm/prospective-students/transfer-students/transfer-guides-hawkeye-community-college to learn more.

If you plan to transfer, work closely with a program advisor to ensure courses transfer and you meet program requirements.

# Careers

Graduates find jobs as mechanics, service technicians, and diesel engine specialists in implement dealerships, factories, construction, independent shops, heavy equipment shops, engine machine shops, truck stops, heavy equipment dealerships, consumer product dealerships, independent farms, independent repair shops, and consumer product dealerships.

This profession is expected to grow by 18%* through 2024 in Iowa.

## Example Careers and Average Wages

| | Entry | Average | Experienced |
|---|---|---|---|
| **Bus and Truck Mechanics and Diesel Engine Specialists** | $38,400 | $51,300 | $57,700 |
| **Farm Equipment Mechanics and Service Technicians** | $38,400 | $48,900 | $54,100 |

*Source: 2022 Iowa Wage Report, Iowa Workforce Development*

## Employers

The following is a partial list of employers who have hired graduates from this program:

| Business | Location |
|---|---|
| Altorfer, Inc. | Cedar Rapids, IA |
| Cedar Valley Corp., LLC | Waterloo, IA |
| Deike Implement Co. | Waverly, IA |
| Growmark | Waterloo, IA |
| MHC Kenworth | Waterloo and Cedar Rapids, IA |
| Mid America Energy | Waterloo, IA |
| P&K Midwest | Waterloo and Keystone, IA |
| Ryder | Cedar Falls, IA |
| Thermo King | Cedar Falls, IA |
| Thompson Truck and Trailer, Inc. | Cedar Rapids and Waterloo, IA |
| Titan Machinery | Waverly, IA |
| Truck Center Companies | Waterloo, IA |
| Warren Transport, Inc. | Waterloo, IA |
| Ziegler CAT | Mason City and Postville, IA |

## Program Admission

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions
3. Meet basic skill competencies in reading, writing, and math.

# Diesel Technology AAS Degree Courses

| | |
|---|---|
| **Award** | Associate of Applied Science (AAS) |
| **Credits** | 72 |
| **Program Start** | Fall |
| **Time to Complete** | 2 years |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ▶ | Course has a prerequisite and/or corequisite. |
| **4WK1** | Course meets the first 4 weeks of the term. |
| **4WK2** | Course meets the second 4 weeks of the term. |
| **4WK3** | Course meets the third 4 weeks of the term. |
| **4WK4** | Course meets the fourth 4 weeks of the term. |
| **8WK2** | Course meets the second 8 weeks of the term. |

| **Term 1** | | | |
|---|---|---|---|
| AGM-124 | Technical Procedures for Power Mechanics Techs | 4WK1 | 3 |
| AGM-111 | Gas Engine Rebuild | 4WK2 | 4 |
| DSL-377 | Diesel Engine Rebuild | 8WK2 | 7 |
| MAT-772 | Applied Math -OR- | | 3 |
| | Math Elective | | 3 |
| | | **Total Credits** | **17** |

| Term 2 | | | | |
|---|---|---|---|---|
| AGM-104 | Electricity | 4WK1 | 4 | |
| AGM-333 | Electronics ► | 4WK2 | 3 | |
| DSL-444 | Fuel Systems | 4WK3 | 4 | |
| DSL-360 | Advanced Diesel Engines, Emissions, and Fuel Systems ► | 4WK4 | 4 | |
| COM-781 | Written Communication in the Workplace ► -OR- | | 3 | ◆ |
| ENG-105 | Composition I ► | | 3 | ◆ |
| | | **Total Credits** | **18** | |

| Term 3 | | | | |
|---|---|---|---|---|
| DSL-831 | Preventative Maintenance ► | 4WK1 | 4 | |
| DSL-424 | EFI Engine Systems ► | 4WK2 | 4 | |
| AGM-119 | Hydraulics I ► | 4WK3 | 4 | |
| AGM-224 | Hydraulics II ► | 4WK4 | 4 | |
| PSY-102 | Human and Work Relations -OR- | | 3 | ◆ |
| PSY-111 | Introduction to Psychology -OR- | | 3 | ◆ |
| SOC-110 | Introduction to Sociology | | 3 | ◆ |
| | | **Total Credits** | **19** | |

| Term 4 | | | |
|---|---|---|---|
| AGM-401 | Ag Power Transfer Systems ► | 4WK1 | 4 |
| DSL-404 | Diesel Truck Power Transfer Systems ► | 4WK2 | 4 |
| DSL-411 | Equipment Repair I ► | 4WK3 | 4 |
| AGM-402 | Equipment Repair II ► | 4WK4 | 3 |
| SPC-101 | Fundamentals of Oral Communication | | 3 |
| | | **Total Credits** | **18** |

| Math Electives | |
|---|---|
| MAT-110 Math for Liberal Arts ► | 3 |
| MAT-121 College Algebra ► | 4 |
| 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 |

# Career Area

# BUSINESS

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Accounting

Administrative Office Management

Hospitality Management

Human Resource Management

Marketing Management

Medical Office Specialist

# Accounting

The Accounting program prepares you for an entry-level career in the accounting field. You will gain hands-on experience with:

- Preparing, analyzing, and tracking financial information
- Individual income tax preparation
- Payroll accounting
- Accounts payable and receivable
- Computer accounting systems, including Sage Accounting and QuickBooks
- Microsoft Office with emphasis on Excel and Word

Our instructors continue to track industry trends and modify courses and content to stay current with what is needed in the workforce. Hawkeye's Accounting program is an excellent launching point into an accounting career.

## Transfer Information

Many four-year colleges and universities accept a limited number of transfer and elective credits.

If you plan to transfer, work closely with a program advisor to ensure courses transfer and you meet program requirements.

## Careers

Graduates work as office accountants or managers in small businesses and as bank tellers or customer service representatives in financial institutions. They also find positions working in financial or accounting offices in public, private, or government accounting departments working with financial statement preparation, payroll, income taxes, budgeting, and cost accounting.

### Example Careers and Average Wages

| | Entry | Average | Experienced |
|---|---|---|---|
| **Bookkeeping, Accounting, and Auditing Clerks** | $29,800 | $43,400 | $50,200 |

*Source: 2022 Iowa Wage Report, Iowa Workforce Development*

### Employers

The following is a partial list of employers who have hired graduates from this program:

| Business | Location |
|---|---|
| Advanced Systems, Inc. | Waterloo, IA |
| Isle Casino Hotel Waterloo | Waterloo, IA |
| Lee Enterprises (Waterloo-Cedar Falls Courier) | Waterloo, IA |
| McGladrey LLP | Waterloo, IA |
| Paul R. Nielsen Co., PC | Cedar Falls, IA |

| Business | Location |
|---|---|
| The Principal Financial Group | Waterloo, IA |
| Veridian Credit Union | Locations throughout Iowa |

# Program Admission

1. Apply for admission at Hawkeye
2. Send official transcripts to Admissions
3. Demonstrate College Readiness

## College Readiness Admission Requirement

In order to be eligible for the Accounting program, all students must meet minimum score requirements and/or successfully complete the required college success courses in math with a C- grade or higher at Hawkeye Community College or comparable courses at another accredited college. For appropriate college success course placement, work with your program advisor.

| | ALEKS | ACCUPLACER | COMPASS | ACT | ACCUPLACER Next Generation | GPA |
|---|---|---|---|---|---|---|
| **Math** | 14 | 63 Arithmetic | 39 Pre-Algebra | 16 | 255 Arithmetic<br>246 Quantitative Reasoning, Algebra, and Statistics | 2.50 |

## Program Acceptance

Applicants successfully demonstrating college readiness criteria are eligible for acceptance.

Applicants falling short of successful demonstration of college readiness criteria will be accepted to a Pre-Program. As a pre-program student, you will begin with general education and prerequisite classes. An advisor will help you create an academic plan to meet your program admission requirements. Once you have completed your pre-program coursework contact Admissions.

# Accounting AAS Degree Courses

| | |
|---|---|
| **Award** | Associate of Applied Science (AAS) |
| **Credits** | 63 |
| **Program Start** | Fall, Spring, Summer |
| **Time to Complete** | 2 years |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023, Spring 2024, or Summer 2024**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ► | Course has a prerequisite and/or corequisite. |
| **O** | Course meets 100% online. |
| **E** | Course meets face-to-face after 5:00pm. |

| **Term 1** | | | | |
|---|---|---|---|---|
| ACC-152 | Financial Accounting ► | | 4 | |
| ACC-160 | Payroll Accounting ► | | 2 | |
| CSC-110 | Introduction to Computers ► -OR- | O | 3 | ◆ |
| CSC-116 | Information Computing ► | O | 3 | ◆ |
| MAT-156 | Statistics ► -OR- | | 3 | |
| | Math Elective | | 3 | |
| SDV-108 | The College Experience | | 1 | |
| | Accounting Elective | | 3 | |
| | | | **Total Credits** | **16** |

| Term 2 | | | |
|---|---|---|---|
| ACC-156 | Managerial Accounting ► | 4 | |
| ACC-310 | Computer Accounting ► | 2 | |
| ACC-360 | Accounting Spreadsheets ► | 2 | |
| ENG-105 | Composition I ► -OR- | 3 | ▣ |
| COM-781 | Written Communication in the Workplace ► | 3 | ▣ |
| SPC-101 | Fundamentals of Oral Communication | 3 | |
| | Accounting Elective | 3 | |
| | | **Total Credits 17** | |

| Term 3 | | | |
|---|---|---|---|
| ACC-222 | Cost Accounting ► | 4 | |
| ACC-231 | Intermediate Accounting I ► | 4 | |
| ACC-265 | Income Tax Accounting | 4 | |
| | Accounting Elective | 3 | |
| | | **Total Credits 15** | |

| Term 4 | | | | |
|---|---|---|---|---|
| ACC-190 | Financial Analysis ► | | 2 | |
| ACC-232 | Intermediate Accounting II ► | | 4 | |
| ACC-240 | Emerging Topics in Accounting | | 1 | |
| BUS-295 | Workplace Professionalism | | 2 | |
| ECN-120 | Principles of Macroeconomics ► -OR- | | 3 | ◆ |
| ECN-110 | Introduction to Economics -OR- | | 3 | ◆ |
| ECN-130 | Principles of Microeconomics ► | O | 3 | ◆ |
| PSY-111 | Introduction to Psychology -OR- | | 3 | ◆ |
| PSY-102 | Human and Work Relations -OR- | | 3 | ◆ |
| SOC-110 | Introduction to Sociology | O | 3 | ◆ |
| | | | **Total Credits 15** | |

| Accounting Electives | | |
|---|---|---|
| BUS-102 | Introduction to Business | 3 |
| BUS-180 | Business Ethics | 3 |
| BUS-183 | Business Law | 3 |
| BUS-210 | Business Statistics ► | 3 |
| ECN-120 | Principles of Macroeconomics ► | 3 |
| ECN-130 | Principles of Microeconomics ► | 3 |
| FIN-121 | Personal Finance | 3 |
| MGT-101 | Principles of Management | 3 |
| MGT-110 | Small Business Management | 3 |

| Math Electives | | |
|---|---|---|
| MAT-110 | Math for Liberal Arts ► | 3 |
| MAT-121 | College Algebra ► | 4 |
| 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 |
| MAT-772 | Applied Math | 3 |

# Accounting Technician Diploma Courses

| | |
|---|---|
| **Award** | Diploma |
| **Credits** | 33 |
| **Program Start** | Fall, Spring, Summer |
| **Time to Complete** | 1 year |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023, Spring 2024, or Summer 2024**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ► | Course has a prerequisite and/or corequisite. |
| **O** | Course meets 100% online. |
| **E** | Course meets face-to-face after 5:00pm. |

| **Term 1** | | | | |
|---|---|---|---|---|
| ACC-115 | Introduction to Accounting -OR- | O | 4 | ◆ |
| ACC-152 | Financial Accounting ► | O | 4 | ◆ |
| ACC-160 | Payroll Accounting ► | | 2 | |
| CSC-110 | Introduction to Computers ► -OR- | O | 3 | ◆ |
| CSC-116 | Information Computing ► | O | 3 | ◆ |
| MAT-772 | Applied Math -OR- | | 3 | |
| | Math Elective | | 3 | |
| SDV-108 | The College Experience | | 1 | |
| | Accounting Technician Elective | | 3 | |
| | | | **Total Credits 16** | |

| Term 2 | | | | |
|---|---|---|---|---|
| ACC-116 | Introduction to Accounting II ► -OR- | O | 4 | ◆ |
| ACC-156 | Managerial Accounting ► | O | 4 | ◆ |
| ACC-310 | Computer Accounting ► | | 2 | |
| ACC-360 | Accounting Spreadsheets ► | | 2 | |
| ENG-105 | Composition I ► -OR- | | 3 | ▣ |
| COM-781 | Written Communication in the Workplace ► | | 3 | ▣ |
| SPC-101 | Fundamentals of Oral Communication | | 3 | |
| | Accounting Technician Elective | | 3 | |
| | | **Total Credits** | **17** | |

| Accounting Technician Electives | | |
|---|---|---|
| BUS-102 | Introduction to Business | 3 |
| BUS-180 | Business Ethics | 3 |
| BUS-183 | Business Law | 3 |
| BUS-210 | Business Statistics ► | 3 |
| ECN-120 | Principles of Macroeconomics ► | 3 |
| ECN-130 | Principles of Microeconomics ► | 3 |
| FIN-121 | Personal Finance | 3 |
| MGT-101 | Principles of Management | 3 |
| MGT-110 | Small Business Management | 3 |

| Math Electives | | |
|---|---|---|
| MAT-110 | Math for Liberal Arts ► | 3 |
| MAT-121 | College Algebra ► | 4 |
| 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 |

# Office Bookkeeper Certificate Courses

| | |
|---|---|
| **Award** | Certificate |
| **Credits** | 11 |
| **Time to Complete** | 4 months |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program** . Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

- ◆ General education course.
- ► Course has a prerequisite and/or corequisite.

| **Term 1** | | |
|---|---|---|
| ACC-115 | Introduction to Accounting -OR- | 4 ◆ |
| ACC-152 | Financial Accounting ► | 4 ◆ |
| ACC-160 | Payroll Accounting ► | 2 |
| ACC-310 | Computer Accounting ► | 2 |
| CSC-110 | Introduction to Computers ► -OR- | 3 ◆ |
| CSC-116 | Information Computing ► | 3 ◆ |
| | **Total Credits** | **11** |

# Administrative Office Management

Office management is an integral part of any organization and the Administrative Office Management program prepares students to manage today's technological and business environment. The roles of administrative office managers have expanded to accommodate not only the latest office technologies but also the implementation of workplace management and supervision skills.

The Administrative Office Management program prepares you with the knowledge and skills needed to become an administrative professional, including:

- Coordinating and managing an office environment
- Problem-solving and customer service
- Supervision and human resources management
- Managing and organizing files and data
- Basic accounting
- Ethical business practices

## Hands-On Learning Opportunities

- Microsoft Office: Develop your skills and knowledge of Microsoft Office applications and earn your Microsoft Office Specialist certification.
- Business communication, computers software, and technology used by office professionals.
- Portfolio: Be prepared for your job search. Develop your resume, cover letter, and other employment documents and practice the interview process.

## Transfer Information

Many Administrative Office Management program courses are also required in other business programs at Hawkeye allowing you to double major or transfer into another program.

The University of Northern Iowa's Department of Applied Engineering and Technical Management has a documented pathway between Hawkeye's Administrative Office Management AAS degree program and UNI's Technology Management Bachelor of Arts degree. Check out UNI's transfer guide at chas.uni.edu/aetm/prospective-students/transfer-students/transfer-guides-hawkeye-community-college to learn more.

If you plan to transfer, work closely with a program advisor to ensure courses transfer and you meet program requirements.

## Careers

Graduates find work as administrative professionals in businesses, companies, legal offices, brokerage firms, schools, insurance companies, and financial institutions.

### Example Careers and Average Wages

| | Entry | Average | Experienced |
|---|---|---|---|
| **Executive Secretaries and Executive Administrative Assistants** | $39,200 | $54,500 | $62,200 |

| | Entry | Average | Experienced |
|---|---|---|---|
| **Secretaries and Administrative Assistants** | $28,500 | $40,400 | $46,400 |

*Source: 2022 Iowa Wage Report, Iowa Workforce Development*

### Employers

The following is a partial list of employers who have hired graduates from this program:

| Business | Location |
|---|---|
| CBE Group | Waterloo, IA |
| CUNA Mutual Group | Waverly, IA |
| Dutton Daniels Hines Kalkhoff Cook & Swanson | Waterloo, IA |
| Hawkeye Community College | Waterloo, IA |
| John Deere | Waterloo, IA |
| Kirkwood Community College | Cedar Rapids, IA |
| Target Distribution Center | Cedar Falls, IA |
| The VGM Group | Waterloo, IA |
| Veridian Credit Union | Waterloo, IA |
| Waterloo Juvenile Public Defender Office | Waterloo, IA |
| Waterloo Community School District | Waterloo, IA |

## Program Admission

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions
3. Meet basic skill competencies in reading, writing, and math.

# Administrative Office Management AAS Degree Courses

| | |
|---|---|
| **Award** | Associate of Applied Science (AAS) |
| **Credits** | 62 |
| **Program Start** | Fall, Spring, Summer |
| **Time to Complete** | 2 years |
| **Course Format** | Face-to-Face |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023, Spring 2024, or Summer 2024**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ► | Course has a prerequisite and/or corequisite. |
| **O** | Course meets 100% online. |
| **E** | Course meets face-to-face after 5:00pm. |

| **Term 1** | | |
|---|---|---|
| BCA-132 | Electronic Communications | 3 |
| BUS-102 | Introduction to Business | 3 |
| CSC-110 | Introduction to Computers ► | 3 |
| MAT-772 | Applied Math -OR- | 3 |
| | Math Elective | 3 |
| MGT-181 | Customer Service Strategies | 2 |
| SDV-108 | The College Experience | 1 |
| | | **Total Credits 15** |

| Term 2 | | | | |
|---|---|---|---|---|
| ACC-115 | Introduction to Accounting -OR- | O | 4 | ◆ |
| ACC-152 | Financial Accounting ► | O | 4 | ◆ |
| ADM-164 | Administrative Office Applications | | 3 | |
| BUS-180 | Business Ethics | | 3 | |
| ENG-105 | Composition I ► | | 3 | |
| MGT-101 | Principles of Management | | 3 | |
| | | **Total Credits** | **16** | |

| Term 3 | | | | |
|---|---|---|---|---|
| BUS-183 | Business Law | | 3 | |
| BUS-295 | Workplace Professionalism | | 2 | |
| MGT-170 | Human Resource Management | | 3 | |
| PSY-102 | Human and Work Relations -OR- | O E | 3 | ◆ |
| PSY-111 | Introduction to Psychology -OR- | O E | 3 | ◆ |
| SOC-110 | Introduction to Sociology | O | 3 | ◆ |
| SPC-101 | Fundamentals of Oral Communication | | 3 | |
| | Administrative Office Management Elective | | 3 | |
| | | **Total Credits** | **17** | |

| Term 4 | | | |
|---|---|---|---|
| BCA-213 | Intermediate Computer Business Applications ► | | 3 |
| MGT-121 | Project Management Basics | | 3 |
| MGT-142 | Problems and Issues in Supervision and Management | | 3 |
| SOC-205 | Diversity in America | | 3 |
| | Administrative Office Management Elective | | 2 |
| | | **Total Credits** | **14** |

| Administrative Office Management Electives | |
|---|---|
| ACC-160 Payroll Accounting ► | 2 |
| ACC-310 Computer Accounting ► | 2 |
| ADM-108 Keyboarding Skill Development | 1 |
| BUS-903 Business Field Experience ► | 3 |
| ECN-120 Principles of Macroeconomics ► | 3 |
| ECN-130 Principles of Microeconomics ► | 3 |
| ENG-106 Composition II ► | 3 |
| MAP-402 Medical Law and Ethics | 2 |

| Math Electives | |
|---|---|
| MAT-110 Math for Liberal Arts ► | 3 |
| MAT-121 College Algebra ► | 4 |
| 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 |

# Administrative Assistant Diploma Courses

| | |
|---|---|
| **Award** | Diploma |
| **Credits** | 28 |
| **Program Start** | Fall, Spring, Summer |
| **Time to Complete** | 1 year |
| **Course Format** | Face-to-Face |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023, Spring 2024, or Summer 2024**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

- ◆ General education course.
- ▣ Non-transfer general education course.
- ► Course has a prerequisite and/or corequisite.
- **O** Course meets 100% online.
- **E** Course meets face-to-face after 5:00pm.

| **Term 1** | | |
|---|---|---|
| ADM-108 | Keyboarding Skill Development | 1 |
| BCA-132 | Electronic Communications | 3 |
| CSC-110 | Introduction to Computers ► | 3 |
| MAT-772 | Applied Math -OR- | 3 |
| | Math Elective | 3 |
| MGT-181 | Customer Service Strategies | 2 |
| SDV-108 | The College Experience | 1 |
| | **Total Credits** | **13** |

| Term 2 | | | | |
|---|---|---|---|---|
| ACC-115 | Introduction to Accounting -OR- | O | 4 | ◆ |
| ACC-152 | Financial Accounting ► | O | 4 | ◆ |
| ADM-164 | Administrative Office Applications | | 3 | |
| BCA-213 | Intermediate Computer Business Applications ► | | 3 | |
| BUS-295 | Workplace Professionalism | | 2 | |
| PSY-102 | Human and Work Relations -OR- | O E | 3 | ◆ |
| PSY-111 | Introduction to Psychology -OR- | O E | 3 | ◆ |
| SOC-110 | Introduction to Sociology | O | 3 | ◆ |
| | | **Total Credits** | **15** | |

| Math Electives | | |
|---|---|---|
| MAT-110 | Math for Liberal Arts ► | 3 |
| MAT-121 | College Algebra ► | 4 |
| 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 |

# Hospitality Management

The Hospitality Management program prepares you for supervisor and manager positions in hotels, resorts, restaurants, institutions, and clubs. You will learn to understand and apply the administrative and practical skills to manage food and lodging operations, including:

- Hospitality principles
- Restaurant and hotel management
- Food and bar operations
- Food safety and prep skills
- Human resources
- Nutrition
- Marketing
- Point-of-sales systems
- Budgeting and finances
- Event planning
- Pool safety and maintenance

Learn from instructors who bring real-world experience from their education and professional lives. Instructors have a variety of certifications from the National Restaurant Association and the State of Iowa.

## Hands-On Learning Opportunities

- Learning Labs: Hospitality Management students get hands-on experience and learning opportunities running the Main Campus RedTail Café.
- Field Trips: Visit a variety of hotels, restaurants, event centers, and food service facilities to learn how your skills and knowledge can be applied in a variety of work environments.
- Community Classroom: Hawkeye has partnered with local businesses to give you experience with large-scale restaurant, dining, and catering operations.
- Internship: Gain 320 hours of real-world work experience ensuring you have the skills you need to succeed in your future career.

## Certifications

You may take National Restaurant Association certification exams and earn the ServSafe Manager, Food and Beverage Management, Purchasing and Inventory, and Dining Room Management certifications.

## Transfer Information

The University of Northern Iowa's Department of Applied Engineering and Technical Management has a documented pathway between Hawkeye's Hospitality Management AAS degree program and UNI's Technology Management Bachelor of Arts degree. Check out UNI's transfer guide at chas.uni.edu/aetm/prospective-students/transfer-students/transfer-guides-hawkeye-community-college to learn more.

If you plan to transfer, work closely with a program advisor to ensure courses transfer and you meet program requirements.

# Careers

Graduates may find employment for supervisory and managerial positions in hotels, restaurants, institutions, and clubs.

## Example Careers and Average Wages

| | Entry | Average | Experienced |
|---|---|---|---|
| **Food Service Managers** | $41,500 | $59,300 | $68,200 |
| **General and Operations Managers** | $43,500 | $90,300 | $113,700 |
| **Lodging Managers** | $32,600 | $51,100 | $60,400 |

*Source: 2022 Iowa Wage Report, Iowa Workforce Development*

## Employers

The following is a partial list of employers who have hired graduates from this program:

| Business | Location |
|---|---|
| Courtyard by Marriott | Waterloo, IA |
| Hilton Garden Inn | Cedar Falls, IA |
| Western Homes | Cedar Falls, IA |
| Lost Island Waterpark | Waterloo, IA |
| The Isle Casino | Waterloo, IA |

# Program Admission

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions
3. Meet basic skill competencies in reading, writing, and math.

# Hospitality Management AAS Degree Courses

| | |
|---|---|
| **Award** | Associate of Applied Science (AAS) |
| **Credits** | 65 |
| **Program Start** | Fall, Spring, Summer |
| **Time to Complete** | 2 years |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023, Spring 2024, or Summer 2024**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ► | Course has a prerequisite and/or corequisite. |
| **O** | Course meets 100% online. |
| **E** | Course meets face-to-face after 5:00pm. |
| **8WK1** | Course meets the first 8 weeks of the term. |
| **8WK2** | Course meets the second 8 weeks of the term. |

| **Term 1** | | | | |
|---|---|---|---|---|
| BUS-102 | Introduction to Business | | 3 | |
| HCM-249 | A la Carte Cooking Lab | | 4 | |
| HCM-309 | Hospitality Safety and Sanitation | | 3 | |
| HCM-608 | Introduction to Hospitality | | 3 | |
| MAT-772 | Applied Math -OR- | O E | 3 | ◆ |
| MAT-110 | Math for Liberal Arts ► -OR- | O E | 3 | ◆ |
| MAT-156 | Statistics ► | O E | 3 | ◆ |
| | | **Total Credits** | **16** | |

| Term 2 | | | | | |
|---|---|---|---|---|---|
| HCM-336 | Event Planning and Customer Service 1 | 8WK1 | | 3 | |
| HCM-593 | Restaurant Management | | | 4 | |
| HCM-605 | Hotel Administration | | | 2 | |
| MGT-170 | Human Resource Management | | | 3 | |
| SPC-101 | Fundamentals of Oral Communication | | | 3 | |
| | | | **Total Credits** | **15** | |

| Term 3 | | | | | |
|---|---|---|---|---|---|
| HCM-240 | Menu Planning and Design | 8WK1 | | 2 | |
| HCM-341 | Catering and Banqueting | 8WK2 | | 2 | |
| COM-781 | Written Communication in the Workplace ► -OR- | | O E | 3 | ◆ |
| ENG-105 | Composition I ► | | O E | 3 | ◆ |
| MGT-210 | Management Decision Making | | | 3 | |
| MKT-110 | Principles of Marketing | | | 3 | |
| MKT-142 | Consumer Behavior | | | 3 | |
| | | | **Total Credits** | **16** | |

| Term 4 | | | | | |
|---|---|---|---|---|---|
| HCM-205 | Dinner and Front of the House | 8WK1 | | 3 | |
| HCM-251 | Purchasing, Receiving, and Inventory ► | 8WK1 | | 2 | |
| HCM-905 | Hospitality Internship ► | 8WK2 | | 3 | |
| ACC-115 | Introduction to Accounting -OR- | | O | 4 | ◆ |
| ACC-152 | Financial Accounting ► | | O | 4 | ◆ |
| BUS-183 | Business Law | | | 3 | |
| PSY-102 | Human and Work Relations -OR- | | O E | 3 | ◆ |
| PSY-111 | Introduction to Psychology -OR- | | O E | 3 | ◆ |
| SOC-110 | Introduction to Sociology | | O | 3 | ◆ |
| | | | **Total Credits** | **18** | |

# Human Resource Management

A career in human resources promises to be rewarding as well as challenging, offering many opportunities for growth. With the ever changing needs of an organization and expectations of the human resources department, this field proves to be motivating and inspirational to see the positive impact made on lives.

The Human Resource Management program prepares you to start in entry-level positions in the human resource field. You will gain knowledge and skills in:

- Basic accounting
- Business and labor laws
- Management
- Interviewing
- Job placement
- Needs assessment
- Strategic planning
- Compensation and benefits
- Training techniques
- Professional document creation
- Labor relations

## Hands-On Learning Opportunities

The Human Resource Management program is very hands-on. Students complete projects, homework, and assignments that often mimic the real world preparing them to do the job when they graduate.

Students will complete a Business Field Experience/Internship where they gain 192 hours of real-world work experience while learning practical skills needed to be successful in an HR roll as well as vital skills to add to their resume.

## Transfer Information

An articulation agreement allows you to transfer your Human Resource Management coursework to the Human Resources Management program at Upper Iowa University–Waterloo. Earn a Bachelor of Science degree in Human Resources Management with two additional years of study. Courses are offered online or in person.

The University of Northern Iowa's Department of Applied Engineering and Technical Management has a documented pathway between Hawkeye's Human Resource Management AAS degree program and UNI's Technology Management Bachelor of Arts degree. Check out UNI's transfer guide at chas.uni.edu/aetm/prospective-students/transfer-students/transfer-guides-hawkeye-community-college to learn more.

If you plan to transfer, work closely with a program advisor to ensure courses transfer and you meet program requirements.

## Careers

Graduates are employed in all kinds of industries, from health care and nursing homes to manufacturing and retail.

Some find that they are in entry-level positions in large HR departments, which allows them to grow and move up within the organization.

Others wear many hats when working at small businesses in which they experience a large variety of duties and tasks, also affording them the chance to decide which parts of HR they prefer for their career before moving on to different organizations.

In addition, some graduates gain employment at employment agencies who serve as recruiters/screeners for organizations, also increasing their network of contacts with businesses that may lead to potential employment with those companies in the future.

Graduates start in positions such as HR Assistant, Payroll, HR generalist, Recruiter, HR specialist, and trainers. Many find that they can get promoted quickly into management roles, including HR Manager./p>

## Example Careers and Average Wages

| | Entry | Average | Experienced |
|---|---|---|---|
| **Human Resources Assistants** | $33,100 | $43,000 | $48,000 |
| **Human Resources Specialists** | $40,400 | $62,800 | $74,000 |

*Source: 2022 Iowa Wage Report, Iowa Workforce Development*

## Employers

The following is a partial list of employers who have hired graduates from this program:

| Business | Location |
|---|---|
| AS, Incorporated Staffing Agency | Cedar Falls, IA |
| BerganKDV | Waterloo, IA |
| City of Waterloo | Waterloo, IA |
| Colony Brands | Peosta, IL |
| Express Employment Professionals | Cedar Falls, IA |
| Grand Jivante | Ackley, IA |
| Richelieu Foods, Inc. | Grundy Center, IA |
| Target Human Resources | Waterloo, IA and TX |
| Transamerica Corporation | Cedar Rapids, IA |
| UnityPoint Health—Allen Hospital | Waterloo, IA |
| MercyOne | Waterloo, IA |
| Woodsmall Electric | North Liberty, IA |

# Program Admission

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions
3. Meet basic skill competencies in reading, writing, and math.

# Human Resource Management AAS Degree Courses

| | |
|---|---|
| **Award** | Associate of Applied Science (AAS) |
| **Credits** | 65 |
| **Enrollment** | Full-time, Part-time |
| **Program Start** | Fall, Spring, Summer |
| **Time to Complete** | 2 years |
| **Course Format** | Face-to-Face, Online |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023, Spring 2024, or Summer 2024**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

- ◆ General education course.
- ► Course has a prerequisite and/or corequisite.
- **O** Course meets 100% online.
- **E** Course meets face-to-face after 5:00pm.

| **Term 1** | | |
|---|---|---|
| BUS-102 | Introduction to Business | 3 |
| ENG-105 | Composition I ► | 3 |
| MGT-101 | Principles of Management | 3 |
| PSY-111 | Introduction to Psychology | 3 |
| SDV-108 | The College Experience | 1 |
| | Human Resource Management Elective | 3 |
| | | **Total Credits 16** |

| Term 2 | | |
|---|---|---|
| ACC-152 | Financial Accounting ► | 4 |
| CSC-110 | Introduction to Computers ► | 3 |
| MGT-142 | Problems and Issues in Supervision and Management | 3 |
| MGT-170 | Human Resource Management | 3 |
| SPC-101 | Fundamentals of Oral Communication | 3 |
| | | **Total Credits 16** |

| Term 3 — Summer | | |
|---|---|---|
| BUS-903 | Business Field Experience ►<br>*Required summer course* | 3 |
| | Math Elective | 3 |
| | | **Total Credits 6** |

| Term 4 | | |
|---|---|---|
| BUS-183 | Business Law | 3 |
| MGT-174 | Training and Employee Development | 3 |
| MGT-177 | Staffing | 3 |
| MGT-180 | Management and Labor Relations | 3 |
| | Human Resource Management Elective | 3 |
| | | **Total Credits 15** |

| Term 5 | | |
|---|---|---|
| BUS-180 | Business Ethics | 3 |
| MGT-178 | Employment Law | 3 |
| MGT-190 | Employee Compensation and Benefits Management | 3 |
| | Human Resource Management Elective | 3 |
| | | **Total Credits 12** |

| Human Resource Management Electives | | |
|---|---|---|
| ACC-156 | Managerial Accounting ► | 4 |
| ECN-120 | Principles of Macroeconomics ► | 3 |
| ECN-130 | Principles of Microeconomics ► | 3 |
| ENG-106 | Composition II ► | 3 |
| MGT-110 | Small Business Management | 3 |
| MGT-121 | Project Management Basics | 3 |
| MGT-590 | HR Certification Prep<br>*Terms 4 and 5 elective* | 3 |
| MKT-110 | Principles of Marketing | 3 |

| Math Electives | | |
|---|---|---|
| MAT-102 | Intermediate Algebra | 4 |
| MAT-110 | Math for Liberal Arts ► | 3 |
| MAT-121 | College Algebra ► | 4 |
| 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 |

# Marketing Management

Today's employers are looking for well-rounded individuals that have a variety of skills to meet the demands and expectations of today's global marketplace. Whether you are looking to work in a support position, managerial role, or possibly start your own business, we have the coursework and resources to help you achieve your goals.

Marketing Management program students build a strong foundation of skills and competencies needed to be successful in today's fast-paced business environment including:

- Organizational and planning skills
- Critical thinking and problem-solving skills
- Communication skills in speaking and writing
- Teamwork and leadership skills
- Computer technology such as Microsoft Office Suite, social media platforms, websites, and digital marketing
- Financial knowledge
- Goal-setting
- Ethics

Students are guided with support from faculty which possess both the necessary academic credentials and industry experience within their respective disciplines. Program faculty also work with area business leaders to keep current with the needs of local employers and incorporate these skills and competencies into program coursework. The rigorous class schedule and optional business field experience course allows students to apply the principles they've learned in a real-world setting.

## Transfer Information

Many four-year colleges and universities accept a limited number of transfer and elective credits.

If you plan to transfer, work closely with a program advisor to ensure courses transfer and you meet program requirements.

## Careers

Many graduates of the Marketing Management program have gone on to become marketing managers and professional sales and customer service representatives. Some have gone on to own their own businesses and others have found careers as managers, merchandisers and buyers within various industries.

Graduates from the Marketing Management program are responsible for creating and/or executing marketing strategies, hiring, training, and supervising employees. They are also responsible for buying and selling product offerings, and planning promotions and advertising campaigns throughout a variety of sectors within today's economy.

Current data confirms careers in business/marketing/management are listed as some of the fastest growing sectors within today's global economy.

Business/marketing/management careers offer flexibility, mobility, and above average pay to match your ability.

### Example Careers and Average Wages

| | Entry | Average | Experienced |
|---|---|---|---|
| **Advertising Sales Agents** | $25,100 | $53,200 | $67,200 |

| | Entry | Average | Experienced |
|---|---|---|---|
| **Customer Service Representatives** | $27,300 | $40,200 | $46,600 |
| **First-Line Supervisors of Non-Retail Sales Workers** | $52,800 | $85,300 | $101,500 |
| **First-Line Supervisors of Office and Administrative Support Workers** | $40,200 | $59,600 | $69,300 |
| **First-Line Supervisors of Retail Sales Workers** | $28,700 | $41,500 | $47,900 |
| **Management Occupations** | $50,100 | $100,700 | $126,000 |
| **Marketing Managers** | $77,100 | $127,100 | $152,100 |
| **Market Research Analysts and Marketing Specialists** | $39,700 | $67,400 | $81,300 |
| **Sales and Related Workers** | $26,300 | $33,500 | $37,200 |
| **Sales Managers** | $70,900 | $122,700 | $148,600 |

*Source: 2022 Iowa Wage Report, Iowa Workforce Development*

## Employers

The following is a partial list of employers who have hired graduates from this program:

| Business | Location |
|---|---|
| Advanced Heat Treat Corp. | Waterloo, IA |
| CUNA Mutual Group | Waverly, IA |
| GEICO Insurance | Coralville, IA |
| Hy-Vee, Inc. | West Des Moines, IA |
| John Deere | Moline, IL |
| Kwik Trip, Inc. | La Crosse, WI |
| McGraw-Hill Education | Dubuque, IA |
| MercyOne | Waterloo, IA |
| PDCM Insurance | Waterloo, IA |
| Target Distribution Center | Cedar Falls, IA |
| The Men's Warehouse, Inc. | Waterloo, IA |
| The VGM Group | Waterloo, IA |
| Toyota Financial Services | Cedar Rapids, IA |

| Business | Location |
| --- | --- |
| Veridian Credit Union | Waterloo, IA |
| W.W. Grainger, Inc. | Waterloo, IA |
| Walmart Stores, Inc. | Bentonville, AR |

## Program Admission

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions
3. Meet basic skill competencies in reading, writing, and math.

# Marketing Management AAS Degree Courses

| | |
|---|---|
| **Award** | Associate of Applied Science (AAS) |
| **Credits** | 64 |
| **Program Start** | Fall, Spring, Summer |
| **Time to Complete** | 2 years |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023, Spring 2024, or Summer 2024**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ► | Course has a prerequisite and/or corequisite. |
| **O** | Course meets 100% online. |
| **E** | Course meets face-to-face after 5:00pm. |

| **Term 1** | | | | |
|---|---|---|---|---|
| BUS-102 | Introduction to Business | | 3 | |
| ENG-105 | Composition I ► -OR- | | 3 | ▣ |
| COM-781 | Written Communication in the Workplace ► | | 3 | ▣ |
| MAT-772 | Applied Math -OR- | | 3 | |
| | Math Elective | | 3 | |
| MKT-110 | Principles of Marketing | | 3 | |
| PSY-102 | Human and Work Relations -OR- | O E | 3 | ◆ |
| PSY-111 | Introduction to Psychology -OR- | O E | 3 | ◆ |
| SOC-110 | Introduction to Sociology | O | 3 | ◆ |
| SDV-108 | The College Experience | | 1 | |
| | | **Total Credits** | **16** | |

| Term 2 | | | | |
|---|---|---|---|---|
| CSC-110 | Introduction to Computers ► | | 3 | |
| ECN-110 | Introduction to Economics -OR- | O | 3 | ◆ |
| ECN-120 | Principles of Macroeconomics ► -OR- | O | 3 | ◆ |
| ECN-130 | Principles of Microeconomics ► | O | 3 | ◆ |
| MKT-140 | Principles of Selling | | 3 | |
| MKT-160 | Principles of Retailing | | 3 | |
| SPC-101 | Fundamentals of Oral Communication | | 3 | |
| | Marketing Elective | | 3 | |
| | | **Total Credits** | **18** | |

| Term 3 | | | | |
|---|---|---|---|---|
| ACC-115 | Introduction to Accounting -OR- | O | 4 | ◆ |
| ACC-152 | Financial Accounting ► | O | 4 | ◆ |
| BUS-295 | Workplace Professionalism | | 2 | |
| MGT-101 | Principles of Management | | 3 | |
| | Marketing Elective | | 3 | |
| | Marketing Elective | | 3 | |
| | | **Total Credits** | **15** | |

| Term 4 | | | |
|---|---|---|---|
| BUS-183 | Business Law | 3 | |
| MGT-170 | Human Resource Management | 3 | |
| MKT-152 | Advertising and Visual Merchandising | 3 | |
| | Marketing Elective | 3 | |
| | Marketing Elective | 3 | |
| | **Total Credits** | **15** | |

| Marketing Electives | | |
|---|---|---|
| ACC-116 | Introduction to Accounting II ► | 4 |
| ACC-156 | Managerial Accounting ► | 4 |
| BCA-132 | Electronic Communications | 3 |
| BCA-213 | Intermediate Computer Business Applications ► | 3 |
| BUS-180 | Business Ethics | 3 |
| BUS-220 | Introduction to International Business | 3 |
| BUS-903 | Business Field Experience ► | 3 |
| COM-140 | Introduction to Mass Media | 3 |
| ENG-106 | Composition II ► | 3 |
| FIN-121 | Personal Finance | 3 |
| GRA-133 | Desktop Publishing | 4 |
| MGT-110 | Small Business Management | 3 |
| MGT-121 | Project Management Basics | 3 |
| MGT-210 | Management Decision Making | 3 |
| MKT-142 | Consumer Behavior | 3 |
| MKT-198 | Sports Marketing | 3 |
| MMS-117 | Social Media for Business | 3 |

| Math Electives | | |
|---|---|---|
| MAT-110 | Math for Liberal Arts ► | 3 |
| MAT-121 | College Algebra ► | 4 |
| 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 |

# Entrepreneurship Certificate Courses

| | |
|---|---|
| **Award** | Certificate |
| **Credits** | 16 |
| **Time to Complete** | 4 months |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program** . Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

- ◆ General education course.
- ► Course has a prerequisite and/or corequisite.

| **Term 1** | | | |
|---|---|---|---|
| ACC-115 | Introduction to Accounting -OR- | 4 | ◆ |
| ACC-152 | Financial Accounting ► | 4 | ◆ |
| MGT-110 | Small Business Management | 3 | |
| MKT-110 | Principles of Marketing | 3 | |
| | Course from Elective List | 3 | |
| | Course from Elective List | 3 | |
| | | **Total Credits 16** | |

| Elective List | | |
|---|---|---|
| BUS-183 | Business Law | 3 |
| HCM-336 | Event Planning and Customer Service 1 | 3 |
| MGT-101 | Principles of Management | 3 |
| MGT-121 | Project Management Basics | 3 |
| MKT-140 | Principles of Selling | 3 |
| MKT-142 | Consumer Behavior | 3 |
| MMS-117 | Social Media for Business | 3 |

# Medical Office Specialist

The Medical Office Specialist program prepares you for an entry-level career in a medical office. You will gain the knowledge and skills necessary to coordinate and facilitate a medical office, including:

- Medical terminology
- Coding medical diagnoses and procedures
- Typing with speed and accuracy
- Managing and organizing medical files and data
- Ethical business practices

## Hands-On Learning Opportunities

- **Health Records System**: Learn the functionality of an electronic health records system by inputting patients' health insurance and demographic information as well as scheduling appointments and collecting payments.
- **VGM Immersion Experience:** Students will get a job shadow experience at VGM Homelink where they will get hands-on experience with medical billing.

## Transfer Information

If you plan to transfer, work closely with a program advisor to ensure courses transfer and you meet program requirements.

## Careers

Graduates find 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, clinic administrators, health unit coordinators, and patient service representatives.

### Example Careers and Average Wages

| | Entry | Average | Experienced |
|---|---|---|---|
| **Medical Secretaries** | $28,400 | $36,000 | $39,700 |

*Source: 2022 Iowa Wage Report, Iowa Workforce Development*

### Employers

The following is a partial list of employers who have hired graduates from this program:

| Business | Location |
|---|---|
| American HomePatient | Waterloo, IA |
| Cedar Valley Medical Specialists, P.C. | Waterloo, IA |
| Peoples Community Health Clinic, Inc. | Waterloo, IA |

| Business | Location |
| --- | --- |
| UnityPoint Health | Waterloo and Cedar Falls, IA |
| MercyOne | Waterloo and Cedar Falls, IA |
| VGM & Associates | Waterloo, IA |

## Program Admission

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions
3. Meet basic skill competencies in reading, writing, and math.

# Medical Office Specialist Diploma Courses

| | |
|---|---|
| **Award** | Diploma |
| **Credits** | 34 |
| **Program Start** | Fall |
| **Time to Complete** | 9 months |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

- ◆ General education course.
- ▣ Non-transfer general education course.
- ► Course has a prerequisite and/or corequisite.

| **Term 1** | | |
|---|---|---|
| ADM-108 | Keyboarding Skill Development | 1 |
| CSC-110 | Introduction to Computers ► | 3 |
| HIT-250 | Coding I ► | 3 |
| HSC-116 | Beginning Medical Terminology | 4 |
| MAT-772 | Applied Math -OR- | 3 |
| | Math Elective | 3 |
| MGT-181 | Customer Service Strategies | 2 |
| SDV-108 | The College Experience | 1 |
| | | **Total Credits 17** |

| Term 2 | | |
|---|---|---|
| BUS-295 | Workplace Professionalism | 2 |
| HIT-215 | Introduction to CPT ► | 2 |
| HIT-290 | Reimbursement Methods | 3 |
| HSC-124 | Advanced Medical Terminology ► | 4 |
| MAP-123 | Administrative Medical Office Procedures ► | 3 |
| MAP-402 | Medical Law and Ethics | 2 |
| MAP-511 | Pharmacology for the Medical Office ► | 1 |
| | | **Total Credits 17** |

| Math Electives | | |
|---|---|---|
| MAT-110 | Math for Liberal Arts ► | 3 |
| 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 |

## Career Area

# CONSTRUCTION TRADES

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Heating and Air Conditioning

Sustainable Construction and Design

# Heating and Air Conditioning

The Heating and Air Conditioning program prepares you for an entry-level career installing, maintaining, and repairing residential and commercial heating, air conditioning, and refrigeration equipment. You will become proficient in the theory and processes of electric, boiler, solar, and fossil fuel heat systems, as well as air cooling and refrigeration equipment. Also gain knowledge and skills in:

- Electricity and electronic controls
- Electrical and mechanical troubleshooting
- Air quality, moisture, and temperature control
- Sheet metal fabrication and installation

## Hands-On Learning Opportunities

- HVAC Lab: Train on a variety of air conditioners, furnaces, heat pumps, air exchangers, boilers, and more.
- Field Experience: Gain 192 hours of real-world work experience ensuring you have the skills you need to succeed in your future career.

## Certifications

You may take the EPA Section 608 Universal Refrigerant and the 410A High-Pressure Refrigerant national certification exams. You may also complete the following HVAC Excellence Employment Ready certifications: Air Conditioning, Electrical, and Gas Heat.

## Apprenticeship Program

Graduates of the program will have completed the first three levels of the four level HVAC apprenticeship training program. Upon successful completion of level four and four years of on-the-job training, graduates will be eligible to take the journeyperson test to receive their journeyperson license.

## Careers

Graduates have a variety of career options including working for dealers, distributors, and commercial business as service technicians and installers.

### Example Careers and Average Wages

| | Entry | Average | Experienced |
|---|---|---|---|
| **Heating, Air Conditioning, and Refrigeration Mechanics and Installers** | $36,800 | $53,600 | $62,000 |

*Source: 2022 Iowa Wage Report, Iowa Workforce Development*

### Employers

The following is a partial list of employers who have hired graduates from this program:

| Business | Location |
|---|---|
| Aire Serv Heating & Air Conditioning | Waterloo, IA |
| Bergen Plumbing, Heating, & Cooling, Inc. | Waterloo, IA |
| Dalton Plumbing, Heating, Cooling, Electric, and Fireplaces, Inc. | Cedar Falls, IA |
| Mike Fereday Heating & Air Conditioning | Waterloo, IA |
| Independence Plumbing, Heating, & Cooling | Independence, IA |
| Jim Hundley Heating, Air Conditioning, & Plumbing | Janesville, IA |
| Plumb Tech, Inc. | Waterloo, IA |
| Young Plumbing & Heating Co. | Waterloo, IA |

## Program Admission

1. Apply at for admission Hawkeye.
2. Send official transcripts to Admissions.
3. Demonstrate College Readiness

### College Readiness Admission Requirement

In order to be eligible for the Heating and Air Conditioning program, all students must meet minimum score requirements and/or successfully complete the required college success courses in English, reading, and math with a C- grade or higher at Hawkeye Community College or comparable courses at another accredited college. For appropriate college success course placement, work with your program advisor.

| | ALEKS | ACCUPLACER | COMPASS | ACT | ACCUPLACER Next Generation | GPA |
|---|---|---|---|---|---|---|
| **Math** | 6 | 40 Arithmetic | 24 Pre-Algebra | 14 | 240 Arithmetic<br>241 Quantitative Reasoning, Algebra, and Statistics | 2.00 |
| **Reading** | --- | 58 | 69 | 16 | 239 | 2.50 |
| **Writing** | --- | 42 Sentence Skills | 20 | 13 | 229 | 1.00 |

### Program Acceptance

Applicants successfully demonstrating college readiness criteria are eligible for acceptance.

Applicants falling short of successful demonstration of college readiness criteria will be accepted to a Pre-Program. As a pre-program student, you will begin with general education and prerequisite classes. An advisor will help you create an academic plan to meet your program admission requirements. Once you have completed your pre-program coursework contact Admissions.

# Heating and Air Conditioning Diploma Courses

| | |
|---|---|
| **Award** | Diploma |
| **Credits** | 44 |
| **Program Start** | Fall |
| **Time to Complete** | 1 year |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ► | Course has a prerequisite and/or corequisite. |
| **O** | Course meets 100% online. |
| **E** | Course meets face-to-face after 5:00pm. |

| **Term 1** | | | |
|---|---|---|---|
| HCR-181 | Introduction to HVACR | 4WK1 | 3 |
| HCR-455 | Applied Electricity for HVACR | 4WK2 | 4 |
| HCR-456 | Applied Electricity II | 4WK3 | 4 |
| HCR-115 | Residential Heating Systems | 4WK4 | 4 |
| MAT-772 | Applied Math -OR- | | 3 |
| | Math Elective | | 3 |
| | | **Total Credits** | **18** |

| Term 2 | | | |
|---|---|---|---|
| HCR-137 | Hydronic Heating Systems | 4WK1 | 3 |
| HCR-143 | Alternative Heating and Cooling Systems | 4WK2 | 4 |
| HCR-171 | Refrigeration | 4WK3 | 4 |
| HCR-204 | Principles of Air Conditioning | 4WK4 | 4 |
| COM-730 | Communications | | 3 |
| | | **Total Credits** | **18** |

| Term 3 — Summer | | |
|---|---|---|
| HCR-264 | Applied Practices | 3 |
| HCR-429 | HVAC App Controls with Automated Systems | 2 |
| HCR-933 | Internship — Air Conditioning | 3 |
| | **Total Credits** | **8** |

| Math Electives | | |
|---|---|---|
| MAT-102 | Intermediate Algebra | 4 |
| MAT-110 | Math for Liberal Arts ► | 3 |
| MAT-121 | College Algebra ► | 4 |
| 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 |

# Sustainable Construction and Design

The Sustainable Construction and Design program prepares you to design and construct sustainable and highly energy-efficient residences. Learn how to construct new homes that are durable; provide a healthy environment; and use very little energy for heating, cooling, and lighting. Utilizing a “whole systems approach”, you will understand the integral relationship between materials, building techniques, mechanical systems, and subcontractors in the production of energy-efficient and sustainable homes. Learn how to use green and renewable materials, properly install all components and subsystems, and reduce construction site waste.

The program follows the National Center for Construction Education and Research (NCCER) training, assessment, certification, and career development standards for residential construction professionals. Program concepts align with the U.S. Green Building Council's initiatives.

## Hands-On Learning Experiences

- Building Experiences: Put the theories and concepts you learn into practice with foundations, concrete work, framing, siding, roofing, thermal/moisture protection, drywall installation/finishing, stair construction, finishing, cabinet installation, HVAC, electrical, plumbing, appliances, and landscaping.
- Energy Audits: Perform energy audits on existing homes to identify problems, develop solutions, and retrofit solutions cost effectively.
- Employment Experience: Gain 256 hours of real-world work experience ensuring you have the skills you need to succeed in your future career.

## Transfer Information

The University of Northern Iowa's Department of Applied Engineering and Technical Management has a variety of documented pathways between Hawkeye's Sustainable Construction and Design AAS degree program and a bachelor degree at UNI. Check out UNI's transfer guides at chas.uni.edu/aetm/prospective-students/transfer-students/transfer-guides-hawkeye-community-college for the following programs to learn more:

- Construction Management
- Technology Management

If you plan to transfer, work closely with a program advisor to ensure courses transfer and you meet program requirements.

## Careers

Graduates find jobs as building designers, sustainable construction professionals, carpenters, insulation workers, residential site supervisors, and energy auditors.

Graduates are also prepared to continue their education to become construction managers, building inspectors, commercial drafters, electricians, plumbers, and HVAC installers.

### Example Careers and Average Wages

| | Entry | Average | Experienced |
|---|---|---|---|
| **Carpenters** | $32,200 | $46,200 | $53,200 |
| **Construction Managers** | $64,000 | $93,800 | $108,800 |
| **Drywall and Ceiling Tile Installers** | $35,200 | $47,800 | $54,100 |
| **First-Line Supervisors of Construction Trades** | $47,800 | $67,600 | $77,600 |

*Source: 2022 Iowa Wage Report, Iowa Workforce Development*

### Employers

The following is a partial list of employers who have hired graduates from this program:

| Business | Location |
|---|---|
| Builders Select | Cedar Falls, IA |
| Dietz Construction L.L.C. | Nashua, IA |
| Johnny B's Construction, Inc. | Denver, IA |
| Peterson Contractors, Inc. | Reinbeck, IA |
| Steve McDonald Construction | Cedar Falls, IA |
| Woods Construction, Inc. | Fairbank, IA |

## Program Admission

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions
3. Meet basic skill competencies in reading, writing, and math.

# Sustainable Construction and Design AAS Degree Courses

| | |
|---|---|
| **Award** | Associate of Applied Science (AAS) |
| **Credits** | 76 |
| **Program Start** | Fall |
| **Time to Complete** | 2 years |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ▶ | Course has a prerequisite and/or corequisite. |
| **O** | Course meets 100% online. |
| **E** | Course meets face-to-face after 5:00pm. |
| **8WK1** | Course meets the first 8 weeks of the term. |
| **8WK2** | Course meets the second 8 weeks of the term. |

| **Term 1** | | | |
|---|---|---|---|
| CON-140 | Concrete Lab ▶ | 8WK1 | 2 |
| CON-201 | Framing Techniques and Lab I | 8WK2 | 2 |
| CON-102 | Introduction to Residential Construction | | 2 |
| CON-108 | Construction Safety | | 1 |
| CON-130 | Concrete Theory | | 1 |
| CON-131 | Site Layout and Blueprint Reading | | 1 |
| CON-133 | Construction Technology Lab | | 4 |
| CON-302 | Building Science I | | 1 |
| MAT-772 | Applied Math -OR- | | 3 |
| | Math Elective | | 3 |
| | | **Total Credits** | **17** |

| Term 2 | | | | |
|---|---|---|---|---|
| CON-121 | Carpentry Fundamentals I ► | | 4 | |
| CON-146 | Construction Technology Lab 2 ► | | 3 | |
| CON-217 | Exterior Finishing | | 3 | |
| HEQ-190 | Introduction to Utility Equipment Operations ► | | 2 | |
| PSY-102 | Human and Work Relations -OR- | O E | 3 | ◆ |
| PSY-111 | Introduction to Psychology -OR- | O E | 3 | ◆ |
| SOC-110 | Introduction to Sociology | O | 3 | ◆ |
| SPC-101 | Fundamentals of Oral Communication -OR- | | 3 | ◆ |
| SPC-112 | Public Speaking | | 3 | ◆ |
| | | **Total Credits** | **18** | |

| Term 3 — Summer | | | | |
|---|---|---|---|---|
| CON-933 | Employment Training Experience ► | | 4 | |
| | | **Total Credits** | **4** | |

| Term 4 | | | | |
|---|---|---|---|---|
| CON-243 | Advanced Framing Techniques ► | 8WK1 | 3 | |
| CON-228 | Methods of Interior Finishing | 8WK2 | 3 | |
| BUS-102 | Introduction to Business | | 3 | |
| CAD-200 | CAD SoftPlan ► | | 3 | |
| CON-486 | Building Science 2 Sustainable Design ► | | 1 | |
| CON-510 | Construction Technology Lab 3 ► | | 3 | |
| HEQ-200 | Utility Equipment Operations ► | | 1 | |
| | | **Total Credits** | **17** | |

| Term 5 | | | | |
|---|---|---|---|---|
| CAD-208 | SoftPlan 2 ► | | 3 | |
| COM-781 | Written Communication in the Workplace ► -OR- | O E | 3 | ◆ |
| ENG-105 | Composition I ► -OR- | O E | 3 | ◆ |
| WBL-110 | Employability Skills | | 3 | ▣ |
| CON-266 | Construction Safety | | 3 | |
| CON-290 | Construction Estimating and Project Management ► | | 2 | |
| CON-515 | Construction Technology Lab 4 | | 4 | |
| ENV-155 | Residential Energy Auditing | | 4 | |
| HCR-200 | Manual J and D HVAC Design ► | | 1 | |
| | | **Total Credits** | **20** | |

| Math Electives | | |
|---|---|---|
| MAT-102 | Intermediate Algebra | 4 |
| MAT-110 | Math for Liberal Arts ► | 3 |
| MAT-121 | College Algebra ► | 4 |
| MAT-128 | Precalculus ► | 4 |
| MAT-134 | Trigonometry and Analytic Geometry ► | 3 |
| MAT-156 | Statistics ► | 3 |
| MAT-210 | Calculus I ► | 4 |

## Career Area

# EDUCATION

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Early Childhood Education

# Early Childhood Education

The Early Childhood Education program prepares you for a rewarding career nurturing the growth and development of young children in a variety of settings. You will gain the knowledge and skills necessary to work with infants through preschool-aged children, including:

- Classroom management
- Critical thinking and problem solving
- Child growth and development
- Curriculum planning and assessment
- Effective communication with children, families, and other educators
- Health, safety, and nutrition
- Infant and toddler care
- Positive emotional and behavioral guidance techniques
- Program administration
- State regulations

Essential skills needed to successfully complete the required coursework, include:

- Ability to plan and implement imaginative and creative activities for children
- Demonstrate responsibility and dependability in field placements
- Decision making skills
- Work cooperatively with peers and field placement staff
- Good written and oral communication skills
- Organizational planning

## Hands-On Learning Opportunities

- Field Experiences: You will gain more than 240 hours of real-world work experience in the Hawkeye's NAEYC accredited Child Development Center and local Head Start, preschool, and early childhood programs. Field experience must be completed during the day.

- Teaching Portfolio: You will develop a portfolio of teaching strategies and tools to get you started in your new career. Prepare lesson plans, activity packets, teaching aides, and more.

- Classroom Technology: Experience the technology of the modern day classroom, including Owlets in infant classrooms, electronic assessment practices, and interactive technology on whiteboards, iPads, and laptops.

## Certifications and Licensure

You may receive the following certifications: First Aid, CPR, Blood Borne Pathogens and Universal Precautions, and Mandatory Reporter.

Hawkeye has not made a determination as to whether the program curriculum meets all other state's educational requirements for licensure or certification. If you wish to work outside the state of Iowa, please contact the state agency in which you hope to work for details about licensure or certification.

## Transfer Information

An articulation agreement with Upper Iowa University allows students to transfer their Early Childhood Education coursework to the Birth – Grade 3: Inclusive Settings major.

An articulation agreement with Northwestern College allows students to pursue an Early Childhood Education Teaching degree or a non-licensure Bachelor of Arts degree in Early Childhood Education. Northwestern College's program is 100% online.

If you plan to transfer, work closely with a program advisor to ensure courses transfer and you meet program requirements.

## Careers

Graduates of the two-year program work as lead, assistant, or associate teachers in child care centers, private preschools, child development homes, and private and public schools. With additional experience and credentials, graduates may become a paraeducator in a public school or the director of a child care center.

Diploma graduates work as child care workers, teacher assistants, and early childhood professionals in child care centers, private preschools, child development homes, and private and public schools. Many graduates provide in-home child care and nanny services.

The Early Childhood certificate prepares the student for an entry-level position in a child care program. The certificate meets the course work requirements for the formal education component of the Child Development Associate (CDA) credential.

### Example Careers and Average Wages

| | Entry | Average | Experienced |
|---|---|---|---|
| **Childcare Workers** | $17,800 | $22,300 | $24,600 |
| **Preschool Teachers in Head Start and Private Preschools** | $21,000 | $32,400 | $38,200 |
| **Teaching Assistants** | $20,900 | $27,400 | $30,600 |

*Source: 2022 Iowa Wage Report, Iowa Workforce Development*

### Employers

The following is a partial list of employers who have hired graduates from this program:

| Business | Location |
|---|---|
| Community United Child Care Centers | Waterloo and Cedar Falls, IA |
| Dike New Hartford Elementary School | Dike, IA |
| Discoveries Learning Center | Denver, IA |
| Exceptional Persons, Inc. | Waterloo, IA |
| Hawkeye Child Development Center | Waterloo, IA |
| Purple Bloom School | Coralville, IA |
| The Goddard School | Waukee, IA |
| Tri-County Child & Family Development Council, Inc. | Waterloo, IA |

| Business | Location |
|---|---|
| Trinity Preschool and Child Care | Waterloo, IA |
| Vinton Shellsburg Community Schools | Vinton, IA |
| Waterloo Community School District | Waterloo, IA |
| Waverly Child Care and Preschool | Waverly, IA |

# Program Admission

## College Readiness Admission Requirement

In order to be eligible for the Early Childhood Education program, all students must meet minimum score requirements and/or successfully complete the required college success courses in English, reading, and math with a C- grade or higher at Hawkeye Community College or comparable courses at another accredited college. For appropriate college success course placement, work with your program advisor.

| | ALEKS | ACCUPLACER | COMPASS | ACT | ACCUPLACER Next Generation | GPA |
|---|---|---|---|---|---|---|
| **Math** | 6 | 40 Arithmetic | 24 Pre-Algebra | 14 | 240 Arithmetic<br>241 Quantitative Reasoning, Algebra, and Statistics | 2.00 |
| **Reading** | --- | 58 | 69 | 16 | 239 | 2.50 |
| **Writing** | --- | 64 Sentence Skills | 41 | 16 | 240 | 2.50 |

## Program Acceptance

Applicants successfully demonstrating college readiness criteria are eligible for acceptance.

Applicants falling short of successful demonstration of college readiness criteria will be accepted to a Pre-Program. As a pre-program student, you will begin with general education and prerequisite classes. An advisor will help you create an academic plan to meet your program admission requirements. Once you have completed your pre-program coursework contact Admissions.

# Early Childhood Education AAS Degree Courses

| | |
|---|---|
| **Award** | Associate of Applied Science (AAS) |
| **Credits** | 61 |
| **Program Start** | Fall, Spring |
| **Time to Complete** | 2 years |
| **Course Format** | Face-to-Face, Online |
| **Class Meets** | Face-to-face during the day, online, or a combination of both to fit your schedule. |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023 or Spring 2024**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ► | Course has a prerequisite and/or corequisite. |
| **O** | Course meets 100% online. |
| **E** | Course meets face-to-face after 5:00pm. |
| ★ | Students must pass a DHS Criminal History Record Check and an FBI Fingerprint Check before being placed in Field Experience courses. |

| **Term 1** | | | |
|---|---|---|---|
| ECE-103 | Introduction to Early Childhood Education | 3 | |
| ECE-158 | Early Childhood Curriculum I | 3 | |
| ECE-170 | Child Growth and Development<br>*Offered Online* | 3 | |
| ECE-221 | Infant/Toddler Care and Education | 3 | |
| ENG-105 | Composition I ► -OR- | 3 | ▣ |
| COM-781 | Written Communication in the Workplace ► | 3 | ▣ |
| | | **Total Credits 15** | |

| Term 2 | | | | |
|---|---|---|---|---|
| ECE-133 | Child Health, Safety, and Nutrition | | | 3 |
| ECE-159 | Early Childhood Curriculum II | | | 3 |
| ECE-243 | Early Childhood Guidance | | | 3 |
| ECE-274 | Field Experience I ►<br>*Placed in variety of classrooms 8 hours per week for 16 weeks* | ★ | | 2 |
| ECE-944 | Field Experience Seminar I<br>*Offered Online* | ★ | | 1 |
| MAT-772 | Applied Math -OR- | | | 3 |
| | Math Elective | | | 3 |
| | | | **Total Credits** | **15** |

| Term 3 | | | | | |
|---|---|---|---|---|---|
| ECE-125 | School Age Care<br>*Offered Online* | | | 2 | |
| ECE-260 | Current Topics and Issues in Child Care<br>*Offered Online* | | | 2 | |
| ECE-284 | Field Experience II ►<br>*Placed in preschool classroom 8 hours per week for 16 weeks* | ★ | | 2 | |
| ECE-298 | Career Strategies for Early Childhood<br>*Offered Online* | | | 2 | |
| ECE-299 | Early Childhood Professional Portfolio<br>*Offered Online* | | | 1 | |
| ECE-945 | Field Experience Seminar II ►<br>*Offered Online* | ★ | | 1 | |
| EDU-130 | Home, School, and Community Relations<br>*Offered Online* | | | 3 | |
| PSY-102 | Human and Work Relations -OR- | | O E | 3 | ◆ |
| PSY-111 | Introduction to Psychology -OR- | | O E | 3 | ◆ |
| SOC-110 | Introduction to Sociology | | O | 3 | ◆ |
| | | | **Total Credits** | **16** | |

| Term 4 | | |
|---|---|---|
| ECE-250 | Advanced Curriculum Planning ►<br>*Offered Online* | 3 |
| ECE-290 | Early Childhood Program Administration ►<br>*Offered Online* | 3 |
| EDU-235 | Children's Literature<br>*Offered Online* | 3 |
| EDU-246 | Including Diverse Learners<br>*Offered Online* | 3 |
| SPC-101 | Fundamentals of Oral Communication | 3 |
| | | **Total Credits 15** |

| Math Electives | | |
|---|---|---|
| MAT-110 | Math for Liberal Arts ► | 3 |
| MAT-121 | College Algebra ► | 4 |
| 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 |

# Early Childhood Education Diploma Courses

| | |
|---|---|
| **Award** | Diploma |
| **Credits** | 30 |
| **Program Start** | Fall, Spring |
| **Time to Complete** | 1 year |
| **Course Format** | Face-to-Face, Online |
| **Class Meets** | Face-to-face during the day, online, or a combination of both to fit your schedule. |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023 or Spring 2024**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ► | Course has a prerequisite and/or corequisite. |
| **O** | Course meets 100% online. |
| **E** | Course meets face-to-face after 5:00pm. |
| ★ | Students must pass a DHS Criminal History Record Check and an FBI Fingerprint Check before being placed in Field Experience courses. |

| **Term 1** | | | |
|---|---|---|---|
| ECE-103 | Introduction to Early Childhood Education | 3 | |
| ECE-158 | Early Childhood Curriculum I | 3 | |
| ECE-170 | Child Growth and Development<br>*Offered Online* | 3 | |
| ECE-221 | Infant/Toddler Care and Education | 3 | |
| ENG-105 | Composition I ► -OR- | 3 | ▣ |
| COM-781 | Written Communication in the Workplace ► | 3 | ▣ |
| | | **Total Credits 15** | |

| Term 2 | | | |
|---|---|---|---|
| ECE-133 | Child Health, Safety, and Nutrition | | 3 |
| ECE-159 | Early Childhood Curriculum II | | 3 |
| ECE-243 | Early Childhood Guidance | | 3 |
| ECE-274 | Field Experience I ►<br>*Placed in variety of classrooms 8 hours per week for 16 weeks* | ★ | 2 |
| ECE-944 | Field Experience Seminar I<br>*Offered Online* | ★ | 1 |
| MAT-772 | Applied Math -OR- | | 3 |
| | Math Elective | | 3 |
| | | **Total Credits** | **15** |

| Math Electives | | |
|---|---|---|
| MAT-110 | Math for Liberal Arts ► | 3 |
| MAT-121 | College Algebra ► | 4 |
| 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 |

# Early Childhood Education Certificate Courses

| | |
|---|---|
| **Award** | Certificate |
| **Credits** | 12 |
| **Program Start** | Fall, Spring |
| **Time to Complete** | 4 months |
| **Course Format** | Face-to-Face, Online |
| **Class Meets** | Face-to-face during the day, online, or a combination of both to fit your schedule. |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023 or Spring 2024**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| **Term 1** | |
|---|---|
| ECE-103 Introduction to Early Childhood Education | 3 |
| ECE-133 Child Health, Safety, and Nutrition | 3 |
| ECE-158 Early Childhood Curriculum I -OR- | 3 |
| ECE-159 Early Childhood Curriculum II -OR- | 3 |
| ECE-221 Infant/Toddler Care and Education | 3 |
| ECE-243 Early Childhood Guidance | 3 |
| | **Total Credits 12** |

## Career Area

# HEALTH SCIENCES AND SERVICES

---

Dental Assisting

Dental Hygiene

Emergency Medical Services

Medical Assistant

Medical Laboratory Technology

Nursing

Occupational Therapy Assistant

Physical Therapist Assistant

Respiratory Care

# Dental Assisting

The Dental Assisting program prepares you to assist a dentist at chair side, perform receptionist and clinical functions, and carry out selected dental laboratory work as a dental assistant. You will gain knowledge and skills in:

- Dental terminology
- Preventative and oral health education
- Oral and dental anatomy
- Digital dental radiography
- Dental procedures
- Computerized charting and record keeping
- Dental equipment and materials
- Infection control

## Hands-On Learning Opportunities

- Dental Clinic: Train in the state-of-the-art clinic featuring 25 patient chairs, computerized patient record software, and a complete digital X-ray system under the supervision of licensed dentists and dental professionals.

- Clinical: Gain 320 hours of real-world work experience ensuring you have the skills you need to succeed in your future career.

## Certification and Licensure

Graduates are eligible to take the national and state/regional examinations for dental assisting registration. A social security number is required to take the exams and apply for licensure.

To identify the states in which Hawkeye's Dental Assisting program requirements fulfill the state guidelines for professional licensure and certification, please visit the Dental Hygiene web page at www.hawkeyecollege.edu/programs/dental-assisting and click on the State Licensure Google Sheet link.

## Accreditation

The Dental Assisting program is accredited by the Commission on Dental Accreditation. The Commission is a specialized accrediting body recognized by the United States Department of Education. Allied Dental Professions graduates are eligible to take necessary Examinations of their choice. Successful completion of board examinations is required to receive a license to practice in the State of Iowa.

Commission on Dental Accreditation
American Dental Association
211 East Chicago Avenue
Chicago, IL 60611
312-440-4653

www.ada.org/en/coda

See our Policy on Third Party Comments at www.hawkeyecollege.edu/webres/File/programs/dental-programs-third-party-policy-posting.pdf

## Board Pass Rates

**Total Students in Program:** 15

* No report yet available

| Examination | | |
|---|---|---|
| **Dental Assisting National Board Certified Dental Assisting Exam (Not required by Iowa)** | Taken | * |
| | Passed | * |
| **Iowa Dental Board Radiology (Required by Iowa)** | Taken | 15 |
| | Passed | 15 (100%) |
| **Iowa Dental Board Infection Control (Required by Iowa)** | Taken | 15 |
| | Passed | 15 (100%) |
| **Iowa Dental Board Jurisprudence for Iowa License (Required by Iowa)** | Taken | 15 |
| | Passed | 15 (100%) |
| **Job Placement as of July 1, 2019** | | 14 (93 %) |

## Careers

Graduates can be employed in many dental career areas, including:

- Private or group practice
- General dentistry or specialty practices
- Dental schools
- Federal government dental facilities

### Example Careers and Average Wages

| | Entry | Average | Experienced |
|---|---|---|---|
| **Dental Assistants** | $34,500 | $44,400 | $49,300 |

*Source: 2022 Iowa Wage Report, Iowa Workforce Development*

### Employers

The following is a partial list of employers who have hired graduates from this program:

| Business | Location |
|---|---|
| Delta Dental of Iowa | Johnston, IA |
| Dental Associates of Manchester | Manchester, IA |

| Business | Location |
|---|---|
| Henry Schein Dental | Melville, NY |
| Iowa Department of Public Health | Des Moines, IA |
| Kimball & Beecher Family Dentistry | Waterloo, IA |
| Patterson Dental Supply, Inc. | Des Moines, IA |
| Peoples Community Health Clinic, Inc. | Waterloo, IA |

# Program Admission

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions.
3. Demonstrate College Readiness

## College Readiness Admission Requirement

In order to be eligible for the Dental Assisting program, all students must meet minimum score requirements and/or successfully complete the required college success courses in English, reading, and math with a C- grade or higher at Hawkeye Community College or comparable courses at another accredited college. For appropriate college success course placement, work with your program advisor.

| | ACCUPLACER | COMPASS | ACT | ACCUPLACER Next Generation | GPA |
|---|---|---|---|---|---|
| **Math** | ← Basic Skills Competency in Math → | | | | |
| **Reading** | 76 | 82 | 19 | 251 | 2.80 |
| **Writing** | 64 Sentence Skills | 41 | 16 | 240 | 2.50 |

## Program Acceptance

Applicants successfully demonstrating college readiness criteria are eligible for acceptance.

Applicants falling short of successful demonstration of college readiness criteria will be accepted to a Pre-Program. As a pre-program student, you will begin with general education and prerequisite classes. An advisor will help you create an academic plan to meet your program admission requirements. Once you have completed your pre-program coursework contact Admissions.

# Dental Assisting Diploma Courses

| | |
|---|---|
| **Award** | Diploma |
| **Credits** | 47 |
| **Program Start** | Fall |
| **Time to Complete** | 1 year |

Accepted students must attend a Mandatory Compliance Training session prior to beginning the first day of the program. Students will be notified of the Mandatory Compliance Training at their MORE orientation and registration session.

As a student in a health program at Hawkeye Community College, and to participate in clinicals, you will be required to complete the following screenings: 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.

## Bloodborne Pathogens, Infectious Disease, and Ionizing Radiation

As a student of the Allied Dental Programs at Hawkeye Community College, individuals may be exposed to bloodborne pathogens, infectious disease, and ionizing radiation. The Dental Assisting and Dental Hygiene Programs both educate students in policies which are outlined in the school catalog, student and faculty handbooks, and program policies and procedures manuals, which are effective in ensuring a safe environment. These items are clearly stated verbally and in written form and given to students, faculty, and staff of Hawkeye Community College through set exposure control guidelines.

Safety regarding ionizing radiation is effective and remains a primary focus, including the design of the radiology facilities, the monitoring of potential radiation through the use of the quarterly TLD badge system, and the registration and monitoring of all equipment in compliance with the State of Iowa regulations for safety. The units used for patient exposure allow for the least amount of radiation exposure when used on the film speed E or the phosphor plate sensors.

The Allied Dental Programs accept responsibility for assuring compliance with federal and state regulations regarding bloodborne pathogens standards and hazardous materials/communications. The Programs recognize the potential for bloodborne infectious disease in patients presenting for care in clinic, sterilization, radiology, and in the dental laboratory. Protocols in all clinic and support areas have been established to integrate the ethical, legal, and regulatory considerations.

# 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ► | Course has a prerequisite and/or corequisite. |
| **10WK** | Course meets for 10 weeks. |

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

| **Term 1** | | |
|---|---|---|
| BIO-163 | Essentials of Anatomy and Physiology * | 4 |
| DEA-103 | Orientation to Dental Assisting | 2 |
| DEA-258 | Dental Anatomy | 4 |
| DEA-302 | Dental Radiography | 3 |
| DEA-412 | Dental Materials I | 3 |
| DEA-513 | Chairside Assisting I | 4 |
| | **Total Credits** | **20** |

* Prior completion of both BIO-168 and BIO-173 with a minimum grade of C will be acceptable replacement for BIO-163.

| **Term 2** | | |
|---|---|---|
| DEA-262 | Dental Sciences ► | 1 |
| DEA-417 | Dental Materials II ► | 2 |
| DEA-514 | Chairside Assisting II ► | 2 |
| DEA-556 | Assisting Clinic I | 4 |
| DEA-603 | Dental Specialties ► | 2 |
| DEA-701 | Dental Office Procedures ► | 1 |
| ENG-105 | Composition I ► | 3 |
| SPC-101 | Fundamentals of Oral Communication | 3 |
| | **Total Credits** | **18** |

| Term 3 – Summer | | | | |
|---|---|---|---|---|
| DEA-578 | Dental Assisting Clinic II | 10WK | 5 | |
| DEA-591 | Dental Assisting Seminar ► | | 1 | |
| PSY-102 | Human and Work Relations -OR- | | 3 | ◆ |
| PSY-111 | Introduction to Psychology -OR- | | 3 | ◆ |
| SOC-110 | Introduction to Sociology | | 3 | ◆ |
| | | | **Total Credits 9** | |

# Dental Hygiene

The Dental Hygiene program prepares you to provide educational, clinical, and therapeutic disease prevention, health promotion, and oral hygiene services under the supervision of a licensed dentist. You will gain knowledge and skills in:

- Medical terminology
- Oral and dental anatomy
- Digital dental radiography
- Dental procedures
- Oral disease and health
- Computerized charting and record keeping
- Dental equipment and materials
- Infection control
- Oral and dental hygiene practices
- Patient education
- Dental pharmacology
- Pain control techniques
- Public health systems

## Hands-On Learning Opportunities

- Dental Clinic: Train in the state-of-the-art clinic featuring 25 patient chairs, computerized patient record software, and a complete 6-chair digital radiology center under the supervision of licensed dentists and dental professionals.

- Clinical: Gain 528 hours of real-world work experience ensuring you have the skills you need to succeed in your future career.

## Licensure and Certification

Registered Dental Hygienist (RDH) is the designation for a licensed professional in the State of Iowa. Graduates of the program are eligible to take the national written and state/regional clinical examinations for licensure, required to practice in any state. A social security number is required in order to take exams and apply for licensure.

To identify the states in which Hawkeye's Dental Hygiene program requirements fulfill the state guidelines for professional licensure and certification visit the Dental Hygiene web page at www.hawkeyecollege.edu/programs/dental-hygiene and click on the State Licensure Google Sheet link.

## Accreditation

The Dental Hygiene program is accredited by the Commission on Dental Accreditation. The Commission is a specialized accrediting body recognized by the United States Department of Education. Allied Dental Professions graduates are eligible to take necessary Examinations of their choice. Successful completion of board examinations is required to receive a license to practice in the State of Iowa.

Commission on Dental Accreditation
American Dental Association
211 East Chicago Avenue
Chicago, IL 60611
312-440-4653

www.ada.org/en/coda

Policy on Third Party Comments: www.hawkeyecollege.edu/webres/File/programs/dental-programs-third-party-policy-posting.pdf

## Board Pass Rates

* No report yet available

| Examination | | |
|---|---|---|
| **Dental Board Hygiene National Exam (ADA NBDHE) (Required by Iowa)** | Attempted 1st Try | 16 |
| | Passed 1st Try | 14 (88%) |
| | Attempted 2nd Try | 2 |
| | Passed 2nd Try | 2 (100%) |
| **Central Regional Dental Testing Service (CRDTS) Exam (Required by Iowa)** | Attempted 1st Try | 16 |
| | Passed 1st Try | 14 (88%) |
| | Attempted 2nd Try | 2 |
| | Passed 2nd Try | 2 (100%) |
| **Jurisprudence Exam for Iowa License (Required by Iowa)** | Attempted 1st Try | 16 |
| | Passed 1st Try | 16 (100%) |
| **Job Placement as of March 31, 2023** | 16/16 | 100% |

## Careers

Our graduates can be employed in many dental areas, including:

- Private dental practices
- Specialty practices
- HMOs
- Long-term care/geriatric centers
- Community outreach organizations

### Example Careers and Average Wages

| | Entry | Average | Experienced |
|---|---|---|---|
| **Dental Hygienists** | $68,100 | $76,000 | $80,000 |

*Source: 2022 Iowa Wage Report, Iowa Workforce Development*

### Employers

The following is a partial list of employers who have hired graduates from this program:

| Business | Location |
|---|---|
| Delta Dental of Iowa | Johnston, IA |
| Dental Associates of Manchester | Manchester, IA |
| Henry Schein Dental | Melville, NY |
| Iowa Department of Public Health | Des Moines, IA |
| Kimball & Beecher Family Dentistry | Waterloo, IA |
| Patterson Dental Supply, Inc. | Des Moines, IA |
| Peoples Community Health Clinic, Inc. | Waterloo, IA |

## Program Admission

In order to be considered for the Dental Hygiene program, students must provide the Admissions office with the appropriate documentation showing completion of all requirements. Appropriate documentation consists of:

- Updated assessment scores. -AND/OR-
- A transcript or degree audit showing successful completion of course requirements (i.e. developmental coursework).

It is the student's responsibility to:

- Monitor their progress towards meeting admissions requirements,
- Notify the Admissions office when requirements have been met, and
- Provide the Admissions office evidence of meeting the requirements.

### Apply at Hawkeye

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions.
3. Demonstrate College Readiness.

### College Readiness Admission Requirement

In order to be eligible for the Dental Hygiene program, all students must meet minimum score requirements and/or successfully complete the required college success courses in English, reading, and math with a C- grade or higher at Hawkeye Community College or comparable courses at another accredited college. For appropriate college success course placement, work with your program advisor.

| | ALEKS | ACCUPLACER | COMPASS | ACT | ACCUPLACER Next Generation | GPA | Success Course * |
|---|---|---|---|---|---|---|---|
| **Math** | 30 | 85 Elementary Algebra | 42 Algebra | 19 | 259 Quantitative Reasoning, Algebra, and Statistics | 2.80 | MAT-063 Elementary Algebra |

| | ALEKS | ACCUPLACER | COMPASS | ACT | ACCUPLACER Next Generation | GPA | Success Course * |
|---|---|---|---|---|---|---|---|
| **Reading** | --- | 76 | 82 | 19 | 251 | 2.80 | RDG-040 College Preparatory Reading III |
| **Writing** | --- | 82 Sentence Skills | 65 | 19 | 253 | 2.80 | ENG-061 College Preparatory Writing II |

* Success course credits do not apply towards graduation requirements.

## Prerequisite Coursework

Prerequisite coursework may be completed at Hawkeye Community College or at any accredited transfer institution. See the suggested sequence of study for a list of prerequisite courses.

Once all prerequisite coursework is completed, contact the Admissions office immediately.

## Program Admittance/Admission Processing

- The Dental Hygiene program registers 25 students each fall.
- Applicants who successfully meet all admission criteria will be given an Eligible-Start Date to be Determined (ETBD) application status. The Eligible-Start Date to be Determined status date is according to the student's prerequisite completion date. If students share the same prerequisite completion date, the registration date for the final prerequisite course will be used.
- The Admissions Office provides Eligible-Start Date to be Determined candidates with an anticipated start term update two times a year, November and February.
- The Admissions Office begins the admittance process for the following fall in late January.
- It is the student's responsibility to keep their contact information up to date and to continually check their Hawkeye email.

**Prior to the First Day of Classes**

Prior to the first day of classes, admitted students must have a physical exam with immunization record on Hawkeye Community College form. Students must also attend a Mandatory Compliance Training session.

Changes are taking place within healthcare facilities nationally. These changes directly affect all health programs at Hawkeye Community College. The Joint Commission of Accreditation of Healthcare Organization (JCAHO), which accredits healthcare facilities across the country, enforced background screening September 2004 and has set requirements mandating that students in a healthcare field must now complete the same background check as hospital employees. As a Health student of Hawkeye Community College, you will be required to complete a criminal background check which includes fingerprinting that searches the following databases of sex offender, child abuse and dependent adult registry, and Medicare/Medicaid Fraud. The outcome could possibly affect your opportunities to participate in the clinical setting

# Dental Hygiene AAS Degree Courses

| | |
|---|---|
| **Award** | Associate of Applied Science (AAS) |
| **Credits** | 68 |
| **Program Start** | Fall |
| **Time to Complete** | 2 years |

As a student in a health program at Hawkeye Community College, and to participate in clinicals, you will be required to complete the following screenings: 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.

## Bloodborne Pathogens, Infectious Disease, and Ionizing Radiation

As a student of the Allied Dental Programs at Hawkeye Community College, individuals may be exposed to bloodborne pathogens, infectious disease, and ionizing radiation. The Dental Assisting and Dental Hygiene Programs both educate students in policies which are outlined in the school catalog, student and faculty handbooks, and program policies and procedures manuals, which are effective in ensuring a safe environment. These items are clearly stated verbally and in written form and given to students, faculty, and staff of Hawkeye Community College through set exposure control guidelines.

Safety regarding ionizing radiation is effective and remains a primary focus, including the design of the radiology facilities, the monitoring of potential radiation through the use of the quarterly TLD badge system, and the registration and monitoring of all equipment in compliance with the State of Iowa regulations for safety. The units used for patient exposure allow for the least amount of radiation exposure when used on the film speed E or the phosphor plate sensors.

The Allied Dental Programs accept responsibility for assuring compliance with federal and state regulations regarding bloodborne pathogens standards and hazardous materials/communications. The Programs recognize the potential for bloodborne infectious disease in patients presenting for care in clinic, sterilization, radiology, and in the dental laboratory. Protocols in all clinic and support areas have been established to integrate the ethical, legal, and regulatory considerations.

# 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

- ◆ General education course.
- ► Course has a prerequisite and/or corequisite.

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

| Term 0 — Prerequisites * | | |
|---|---|---|
| BIO-168 | Human Anatomy and Physiology I | 4 |
| BIO-173 | Human Anatomy and Physiology II ► | 4 |
| BIO-186 | Microbiology | 4 |
| CHM-122 | Introduction to General Chemistry ► | 4 |
| HSC-113 | Medical Terminology | 2 |
| | **Total Credits** | **18** |

* All prerequisites must be completed with a minimum grade of C- and a minimum cumulative prerequisite GPA of 3.00. Students are not eligible for the Iowa Vocational Technical Tuition Grant while taking prerequisite courses.

| Term 1 | | |
|---|---|---|
| DHY-111 | Head and Neck Anatomy for Dental Hygiene ► | 2 |
| DHY-116 | Tooth Morphology ► | 1 |
| DHY-121 | Oral Histology and Embryology ► | 2 |
| DHY-160 | Oral Radiology | 3 |
| DHY-175 | Fundamentals of Clinical Dental Hygiene ► | 6 |
| | **Total Credits** | **14** |

| Term 2 | | |
|---|---|---|
| CHM-132 | Introduction to Organic and Biochemistry ► | 4 |
| DHY-141 | General and Oral Pathology ► | 3 |
| DHY-187 | Clinical Dental Hygiene II ► | 3 |
| DHY-188 | Clinical Dental Hygiene II Seminar ► | 1 |
| DHY-210 | Introduction To Periodontology ► | 1 |
| DHY-210 | Introduction To Periodontology ► | 1 |
| DHY-227 | Biomaterials for the Dental Hygienist ► | 2 |
| DHY-240 | Ethics and Jurisprudence ► | 1 |
| DHY-264 | Special Needs Patient Education ► | 2 |
| | | **Total Credits 17** |

| Term 3 — Summer | | |
|---|---|---|
| PSY-111 | Introduction to Psychology | 3 |
| SOC-110 | Introduction to Sociology | 3 |
| | | **Total Credits 6** |

| Term 4 | | |
|---|---|---|
| BIO-151 | Nutrition | 3 |
| DHY-131 | Pharmacology ► | 2 |
| DHY-211 | Periodontology ► | 2 |
| DHY-254 | Community Oral Health I ► | 2 |
| DHY-271 | Pain Control ► | 2 |
| DHY-297 | Clinical Dental Hygiene III ► | 4 |
| DHY-298 | Clinical Dental Hygiene III Seminar ► | 2 |
| | | **Total Credits 17** |

| Term 5 | | |
|---|---|---|
| DHY-259 | Community Oral Health Service Learning Experience ► | 1 |
| DHY-272 | Interdisciplinary Health Care ► | 2 |
| DHY-307 | Clinical Dental Hygiene IV ► | 4 |
| DHY-308 | Clinical Dental Hygiene Seminar IV ► | 1 |
| DHY-901 | Independent Study Clinical Dental Hygiene *(optional)* | 1 |
| ENG-105 | Composition I ► | 3 |
| SPC-101 | Fundamentals of Oral Communication | 3 |
| | | **Total Credits 14** |

# Emergency Medical Services

The Emergency Medical Services (EMS) program prepares you for entry-level emergency medical technician (EMT) and paramedic positions. You will gain the knowledge and skills necessary to recognize, assess, and manage medical emergencies and patients with acute traumatic and medical conditions in a pre-hospital setting. You'll be prepared to provide optimal response and care to victims of any emergency, disaster, or mass casualty event. Skills include but are not limited to:

- Patient assessment and stabilization
- Medication administration
- Airway management and ventilation
- Patient records and documentation
- Wound care

EMS is a unique combination of public health, public safety, and acute patient care.

## Hands-On Learning Opportunities

- Patient Simulator Lab and Ambulance: Learn how to handle and react to a variety of patient scenarios in controlled environments.

- Clinical Experience: Gain real-world work experience ensuring you have the skills you need to succeed in your future career.

- EMS World Expo: Hawkeye EMS students have a unique opportunity to attend EMS World Expo every year. Our with EMS Expo allows students to experience the event behind the scenes and work the conference in addition to attending education sessions.

## Technical Standards

Technical Standards will help you assess your ability to succeed in the EMS program and the EMS profession. These technical standards include personal and professional attributes, skills, knowledge, physical, medical, safety, and other requirements that an individual must meet in order to be eligible for admission to and retention in the EMS program.

The Emergency Services Program is accredited by the Commission on Accreditation of Allied Health Education Programs upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP).

**To Contact CAAHEP**

Commission on Accreditation of Allied Health Education Programs
9355 - 113th St. N, #7709
Seminole, FL 33775
727-210-2350
www.caahep.org

**To Contact COAEMSP**

8301 Lakeview Parkway, Suite 111-312
Rowlett TX 75088
214-703-8445
214-703-8992 (fax)
www.coaemsp.org

The Emergency Medical Services program is authorized by the Iowa Department of Public Health, Bureau of Emergency Medical Services (EMS).

## Mission Statements

Hawkeye Community College EMS education program's mission is to provide high quality, relevant, and accurate EMS education and training opportunities for individuals, agencies, institutions, and organizations; both career and volunteer; in Hawkeye Community College's service district.

Hawkeye Community College's paramedic program goal is to prepare competent entry-level Paramedics in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains with or without exit points at the Advanced Emergency Medical Technician and/or Emergency Medical Technician, and/or Emergency Medical Responder levels.

## Paramedic Program Student Outcomes

| | 2021 | 2022 |
|---|---|---|
| **Graduates** | 10 | 10 |
| **Retention** | 83% | 92% |
| **Certification** | 100% | 90% |
| **Positive Placement** | 100% | 90% |

## Transfer Information

Articulation agreements with Columbia Southern University and Upper Iowa University allow you to transfer your Emergency Medical Services coursework to earn a Bachelor of Science degree.

- See Columbia Southern University's online Bachelor of Science in emergency medical services administration program (www.columbiasouthern.edu/online-degree/view-all-programs/bachelors/bs-ems/).
- Upper Iowa University Bachelor of Science (BS) in Public Administration — Emergency Management Emphasis articulation agreement (www.hawkeyecollege.edu/webres/File/programs/EMS-articulation-agreement-UIU-BS-public-administration-emergency-management-emphasis.pdf)
- Upper Iowa University Bachelor of Science (BS) in Emergency and Disaster Management (www.hawkeyecollege.edu/webres/File/programs/EMS-articulation-agreement-UIU-BS-public-administration-emergency-management-emphasis.pdf)

If you plan to transfer, work closely with a program advisor to ensure courses transfer and you meet program requirements.

## Your Criminal History Matters

As a future emergency services responder, students need to use good judgment in all areas of their personal, professional, and scholastic interactions and activities; and must keep their records clean. All hospitals, EMS, and fire agencies require background checks for internships, volunteer placements, and employment.

Be aware that character counts and your behavior can sabotage your ability to graduate from this program and your ability to work in the field. Consider what your actions and criminal history says about you….i.e. an OWI conviction indicates that you demonstrate poor judgment by drinking to excess and deciding to drive, which may kill or injure you or another person.

If you want to work in emergency services, avoid these issues:

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

You will not be employable in emergency services if you have:

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

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

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

## Careers

Graduates may find employment working as emergency medical technicians (EMTs) or paramedics in fire departments, hospitals, private ambulance services, air medical services, federal agencies, and private corporations.

### Example Careers and Average Wages

| | Entry | Average | Experienced |
|---|---|---|---|
| **Emergency Medical Technicians** | $25,300 | $32,600 | $36,200 |
| **Paramedics** | $33,900 | $44,600 | $50,000 |

*Source: 2022 Iowa Wage Report, Iowa Workforce Development*

### Employers

The following is a partial list of employers who have hired graduates from this program:

| Business | Location |
|---|---|
| Area Ambulance Service | Cedar Rapids |
| CARE Ambulance, LLC | Iowa City |
| Davenport Fire Department | Davenport |
| Mason City Fire Department | Mason City |
| MEDIC EMS | Davenport |
| Mercy Medical Center | Cedar Rapids |
| MercyOne | Waterloo |
| North Benton Ambulance Service | Vinton |
| Waterloo Fire Rescue | Waterloo |
| Waverly Health Center | Waverly |

## Program Admission

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions
3. Meet basic skill competencies in reading, writing, and math.

# Emergency Medical Services Program Technical Standards

Hawkeye Community College serves a variety of individuals; therefore, the term “student” refers to any individual taking a course through Hawkeye Community College in some capacity. Students include those taking courses for credit as a degree or non-degree seeking student; those taking courses through Concurrent Enrollment (high school and college credit courses); and those taking courses through Business and Community Education or the Adult Learning Center.

Hawkeye complies with the Americans with Disabilities Act (ADA), Section 504 of the Rehabilitation Act of 1973, respective amendments and other applicable federal and state laws that prohibit discrimination on the basis of disability.

Clear academic and technical standards assure that decisions concerning entrance for all students are based upon non-discriminatory criteria. Federal law requires the provision of reasonable accommodations to persons with disabilities who possess “the academic and technical (non-academic) standards” for admission or participation in the EMS programs and courses.

Having technical standards available also assists potential applicants with or without disabilities to assess their ability to succeed in the program and the EMS profession. Technical standards for admission are all non-academic criteria that are essential to participate in the EMS program. These technical standards include personal and professional attributes, skills, knowledge, physical, medical, safety, and other requirements that an individual mu? meet in order to be eligible for admission to and retention in the EMS program.

Students admitted to the EMS program are expected to be able to complete curriculum requirements which include physical, cognitive, and a?ective core competencies that are essential to the functions of the entry level EMS provider.

These core competencies are considered the minimum and essential skills necessary to protect the public. These abilities are encountered in unique combinations in the provision of safe and effective EMS care. Progression in the program may be denied if a student is unable to demonstrate the technical standards with or without reasonable accommodations.

The Emergency Medical Services program is required to provide reasonable accommodations to quali?ed students with disabilities, which may include academic adjustments, auxiliary aids, and/or program modi?cations. Accommodations that fundamentally alter the nature of the academic program, could jeopardize the health and safety of others, or cause an undue burden to the program are not considered reasonable accommodations.

| Technical Standard | Definition of Standards | Examples |
|---|---|---|
| **Critical Thinking** | Sufficient cognitive skills and critical thinking abilities such that the student can formulate and implement reasonable decisions based on available information in the absence of other personnel and/or supervisors; make fast and appropriate decisions in rapidly-evolving situations, particularly pertaining to creating and implementing a patient care plan in accord with established protocols. | • Assess scene safety in uncontrolled environments<br>• Assess patient’s medical history and condition<br>• Determine and prioritize the severity of the illness/injury<br>• Determine correct treatment modalities, including exceptions to approved modalities<br>• Determine limits of acceptable span of control in ordinary/extraordinary circumstances (ex: hazardous scene) |
| **Problem Solving Skills** | Ability to calmly intervene in various stressful, emergency situations; make correct initial decisions and draw reasonable conclusions that allow selection and pursuit of acceptable outcome options; synthesize information gathered from consecutive assessments. | • Formulate correct decisions<br>• Integrate correct treatment protocol(s)<br>• Devise an accepted plan to provide patient care in typical/atypical case<br>• Utilize standard accepted equipment for safe patient care and movement |

| Technical Standard | Definition of Standards | Examples |
|---|---|---|
| **Interpersonal Skills** | Sufficient ability to interact with individuals, families, groups, public safety personnel and other medical professionals from a variety of social, emotional, cultural, and intellectual backgrounds. | • Establish and maintain supportive relationships with patients, family members, bystanders, public safety, media, political officials, and other health care providers under stressful and non-stressful situations |
| **Communication Skills** | Sufficient ability to interact effectively with others via the English language using non-verbal, verbal, and written forms of communication. Communication occurs via face-to-face interaction, telephone, two-way radio, and computer-based written reports. | • Ask questions to quickly obtain information related to emergency situations<br>• Receive and interpret information from patients, bystanders, other responders<br>• Identify and communicate the need for additional resources<br>• Request and clarify orders from supervisors |
| **Coping Skills** | Ability to deal effectively with stress produced by work and interaction situations. | • Appropriately handle emotional situations that affect citizens, victims, families, friends, coworkers, bystanders, and other public safety personnel<br>• Recognize personal limitations and request assistance as appropriate |
| **Mobility** | Sufficient physical abilities to drive and work in an ambulance; lift, and move immobile patients; engage in regular physical fitness training; prolonged standing, walking; jogging/running; jumping; climbing; crawling; pushing/pulling; negotiating stairs, hazardous and/or uneven terrain, all while carrying a patient in or on a carrying device. | • Quickly enter/exit and drive an ambulance or other emergency vehicle without assistance<br>• Perform physical EMS activities such as CPR, airway management, medication administration, lifting and moving patients in a variety of body positions and environmental conditions<br>• Recognize and negotiate hazards in all environmental extremes including but not limited to light/dark, heat/cold, wet/dry/frozen scenes<br>• Wear appropriate personal protective equipment (PPE) without assistance (ex: gloves, masks, etc.)<br>• Perform rescue duties<br>• Operate emergency vehicle under extreme environmental conditions |
| **Motor Skills** | Ability to perform gross and fine motor skills required in the performance EMS duties as indicated in the state and national standard curriculum. | • Perform physical tasks requiring prolonged physical exertion (ex: walking for long periods of time while carrying equipment and/or patients, vehicle extrication, extrication of a victim from the confines of a structure)<br>• Perform tasks requiring walking, crawling, stooping, bending, kneeling, or working prone or supine |

| Technical Standard | Definition of Standards | Examples |
|---|---|---|
| **Auditory Skills** | Sufficient auditory ability to quickly send and receive information, engage in urgent situations, discern personal danger at emergency scenes, hear requests for aid, hear verbal orders and instructions from other people in noisy environments; safely operate patrol vehicle under emergency conditions. | • Effectively use sense of hearing to aid in assessing the scene and patients in duress<br>• Recognize various signals from medical equipment or emergency alarms, dangers/warnings associated with hazardous scenes<br>• Communicate via two-way radio and telephone links<br>• Receive and respond to instructors, team leaders and others |
| **Visual Skills** | Sufficient visual acuity (corrected or not) for safe performance of EMS duties under normal and emergency conditions; observation and implementation of appropriate care for patients; assessment and determination of scene hazards potentially effecting the safety of self and others. | • Recognize signs during patient assessment<br>• Recognize hazards, interpret indicators and measurements from medical monitoring and treatment equipment<br>• Discern settings and parameters of settings of medical equipment such as cardiac monitor/defibrillator, ventilator, syringes, size identifiers, medical procedures such as starting an I.V., administering medication, reading an EKG<br>• Prepare and submit written reports |
| **Tactile Skills** | Sufficient sense of touch and tactile acuity necessary in the performance of EMS duties. | • Palpate a pulse and detect changes or abnormalities of surface, texture, skin temperature, body segment contour, muscle tone and/or joint movement |
| **Environmental** | Olfactory senses sufficient for maintaining environmental, personal, and coworker safety, and for detecting changes that may indicate a deterioration in the current environment or the presence of a hazardous situation. | • Detect and identify smells, visible signs, audible signals related to EMS duties and contributory to self-preservation and safety of others, including but not limited to smoke, burning materials, gasoline and noxious fumes |
| **Emotional/Behavioral** | Ability to demonstrate professional behaviors and a strong work ethic. | • Demonstrate flexibility, honesty, empathy, patience and cooperative behaviors<br>• Display high levels of personal responsibility, accountability and development<br>• Demonstrate respect for citizens, patients, witnesses, suspects, and other public safety professionals<br>• Maintain strict confidentiality of federally protected healthcare information, present a professional appearance and maintain personal hygiene |

In the case of an otherwise qualified individual with a documented disability, appropriate and reasonable accommodations will be made unless to do so would fundamentally alter the essential training elements, cause undue hardship, or produce a direct threat to the safety of the patient or student. Hawkeye believes that disability is a naturally occurring aspect of humanity's diversity and is an integral part of society and Hawkeye Community College. Hawkeye believes in working collaboratively with students, faculty, and staff to provide accessible and equal opportunities for all students.

# Emergency Medical Services AAS Degree Courses

| | |
|---|---|
| **Award** | Associate of Applied Science (AAS) |
| **Credits** | 63 |
| **Enrollment** | Full-time |
| **Program Start** | Fall, Spring, Summer |
| **Time to Complete** | 2 years |
| **Course Format** | Face-to-Face |
| **Class Meets** | Daytime |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023, Spring 2024, or Summer 2024**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

- ◆ General education course.
- ► Course has a prerequisite and/or corequisite.

| **Term 1** | | | |
|---|---|---|---|
| BIO-163 | Essentials of Anatomy and Physiology -OR- | 4 | ◆ |
| BIO-168 | Human Anatomy and Physiology I -AND- | 4 | ◆ |
| BIO-173 | Human Anatomy and Physiology II ► | 4 | ◆ |
| EMS-363 | Emergency Medical Technician I | 3 | |
| EMS-364 | Emergency Medical Technician II ► | 3 | |
| EMS-365 | Emergency Medical Technician II Clinical ► | 1 | |
| ENG-105 | Composition I ► | 3 | |
| | | **Total Credits 14** | |

Most Term 1 courses can be taken during the fall, spring, or summer.

| Term 2 | | | |
|---|---|---|---|
| EMS-856 | Management of Emergency Medical Services -OR- | 3 | ◆ |
| CSC-110 | Introduction to Computers ► -OR- | 3 | ◆ |
| FIR-139 | Fire Fighter I -OR- | 4 | |
| PEH-111 | Personal Wellness | 3 | ◆ |
| MAT-110 | Math for Liberal Arts ► -OR- | 3 | ◆ |
| MAT-121 | College Algebra ► -OR- | 4 | ◆ |
| MAT-156 | Statistics ► | 3 | ◆ |
| SOC-110 | Introduction to Sociology -OR- | 3 | ◆ |
| PSY-111 | Introduction to Psychology | 3 | ◆ |
| SPC-101 | Fundamentals of Oral Communication | 3 | |
| | | **Total Credits 12** | |

Most Term 2 courses can be taken during the fall, spring, or summer.

| Term 3 — Fall | | |
|---|---|---|
| EMS-541 | Clinical I | 3 |
| EMS-610 | Paramedic Pharmacology and Medication Administration | 4 |
| EMS-619 | Airway and Patient Assessment | 4 |
| EMS-641 | Introduction to Paramedicine | 3 |
| EMS-674 | Cardiology for the Paramedic | 4 |
| | **Total Credits 18** | |

| Term 4 — Spring | | |
|---|---|---|
| EMS-546 | Clinical II ► | 3 |
| EMS-650 | Medical and Psychological Emergencies | 4 |
| EMS-654 | EMS Operations | 2 |
| EMS-668 | Special Considerations for the Paramedic | 2 |
| EMS-678 | Traumatic Emergencies for the Paramedic | 3 |
| EMS-688 | Field Experience for the Paramedic | 1 |
| | **Total Credits 15** | |

| Term 5 — Summer | | |
|---|---|---|
| EMS-655 | Transition to Paramedic Practice ► | 4 |
| | **Total Credits 4** | |

# Paramedic Certificate Courses

| | |
|---|---|
| **Award** | Certificate |
| **Credits** | 37 |
| **Enrollment** | Full-time |
| **Program Start** | Fall |
| **Time to Complete** | 1 year |
| **Course Format** | Face-to-Face |
| **Class Meets** | Daytime |

**Prior to the first day of classes** you will be required to complete all of the following background screenings: Drug screening, criminal background, sex offender, and adult/dependent abuse background checks. Failing a drug screening or background check will result in dismissal from the program.

**Prior to the first day of classes** you must be Basic Life Support for Healthcare Provider CPR certified.

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

- ◆ General education course.
- ► Course has a prerequisite and/or corequisite.

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

| Term 0 — Prerequisites | | | |
|---|---|---|---|
| BIO-163 | Essentials of Anatomy and Physiology -OR- | 4 | ◆ |
| BIO-168 | Human Anatomy and Physiology I -AND- | 4 | ◆ |
| BIO-173 | Human Anatomy and Physiology II ► | 4 | ◆ |
| EMS-363 | Emergency Medical Technician I | 3 | |
| EMS-364 | Emergency Medical Technician II ► | 3 | |
| EMS-365 | Emergency Medical Technician II Clinical ► | 1 | |
| | | **Total Credits 11** | |

| Term 1 — Fall | | |
|---|---|---|
| EMS-541 | Clinical I | 3 |
| EMS-610 | Paramedic Pharmacology and Medication Administration | 4 |
| EMS-619 | Airway and Patient Assessment | 4 |
| EMS-641 | Introduction to Paramedicine | 3 |
| EMS-674 | Cardiology for the Paramedic | 4 |
| | **Total Credits 18** | |

| Term 2 — Spring | | |
|---|---|---|
| EMS-546 | Clinical II ► | 3 |
| EMS-650 | Medical and Psychological Emergencies | 4 |
| EMS-654 | EMS Operations | 2 |
| EMS-668 | Special Considerations for the Paramedic | 2 |
| EMS-678 | Traumatic Emergencies for the Paramedic | 3 |
| EMS-688 | Field Experience for the Paramedic | 1 |
| | **Total Credits 15** | |

| Term 3 — Summer | | |
|---|---|---|
| EMS-655 | Transition to Paramedic Practice ► | 4 |
| | **Total Credits 4** | |

# AEMT Certificate Certificate Courses

| | |
|---|---|
| **Award** | Certificate |
| **Credits** | 10 |
| **Program Start** | Fall |
| **Time to Complete** | 9 months |
| **Class Meets** | Evening only |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

► Course has a prerequisite and/or corequisite.

| **Term 1** | |
|---|---|
| EMS-370 Advanced EMT I | 4 |
| | **Total Credits 4** |

| **Term 2** | |
|---|---|
| EMS-371 Advanced EMT II ► | 4 |
| EMS-372 Advanced EMT Clinical ► | 2 |
| | **Total Credits 6** |

# EMT Certificate Certificate Courses

| | |
|---|---|
| **Award** | Certificate |
| **Credits** | 7 |
| **Program Start** | Fall, Spring, Summer |
| **Time to Complete** | 4 months |
| **Class Meets** | Day and evening sessions offered fall and spring semesters. Hybrid courses offered during summer term. |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023, Spring 2024, or Summer 2024**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

► Course has a prerequisite and/or corequisite.

| **Term 1** | |
|---|---|
| EMS-363 Emergency Medical Technician I | 3 |
| EMS-364 Emergency Medical Technician II ► | 3 |
| EMS-365 Emergency Medical Technician II Clinical ► | 1 |
| **Total Credits** | **7** |

# Medical Assistant

Pursue a high-demand career in the medical field as a medical assistant helping patients navigate the healthcare system and assisting healthcare providers.

As a Medical Assistant program student you will gain the skills necessary to care for patients and assist healthcare providers, including:

- Taking vital signs
- Collecting and preparing lab specimens and performing diagnostic tests
- Administering medication and injections
- Collecting and recording data
- Educating patients

You will also learn administrative clinic duties such as:

- Office management and procedures
- Scheduling and billing practices

## Hands-On Learning Opportunities

- Patient Simulator Lab: Learn how to handle and react to a variety of patient scenarios in a controlled environment.
- Practicum: Gain over 200 hours of real-world work experience ensuring you have the skills you need to succeed in your future career.

## Certification and Licensure

Successful completion of this program qualifies the student to test for license/certification in the state of Iowa.

A graduate of the Medical Assistant program is eligible to take the RMA (Registered Medical Assistant) or CMA (Certified Medical Assistant), national exams recognized by all states for practice as a Medical Assistant.

To identify the states in which Hawkeye's Medical Assistant program requirements fulfill the state guidelines for professional licensure and certification, visit the program web page at www.hawkeyecollege.edu/programs/medical-assistant and click on the State Licensure Google Sheet link.

## Accreditation

The Hawkeye Community College Medical Assistant program is accredited by the Commission on Accreditation of Allied Health Education Programs upon the recommendation of Medical Assisting Education Review Board (MAERB).

Commission on Accreditation of Allied Health Education Programs
25400 US Highway 19 North, Suite 158
Clearwater, FL 33763
727-210-2350
www.caahep.org

## Student Outcomes

| | 2019 | 2020 | 2021 |
|---|---|---|---|
| **Students entering the program** | 12 | 17 | 11 |
| **Admission cohort retention rate** | 91.6% | 100% | 90.91% |
| **Exam passage rate** | 100% | 100% | 100% |

## Program Mission

The mission of the Hawkeye Community College Medical Assistant program is to develop educated students and lifelong learners that enter the field as entry level productive and valuable members of the health care team in an ambulatory healthcare facility performing both administrative and clinical tasks within their scope of training.

## Program Goals

The goal of the Medical Assistant program is to prepare medical assistants who are competent in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains to enter the profession.

## Professional Associations and Involvement

Hawkeye has organized the new Blackhawk chapter of the Iowa Society of Medical Assistants (ISMA). Students, graduates, and medical assistants working in the area are eligible to join this community of health professionals and share their experiences and stay on top of the latest trends. Students and members may earn CEUs by participating at the bi-monthly meetings.

## Careers

Graduates may find employment working as a medical assistant in doctor's offices, clinics, specialty clinics, or hospitals under the supervision of a licensed healthcare professional. The medical assistant profession is expected to grow by 18%* through 2024 in Iowa.

### Example Careers and Average Wages

| | Entry | Average | Experienced |
|---|---|---|---|
| **Medical Assistants** | $31,100 | $38,300 | $41,900 |

*Source: 2022 Iowa Wage Report, Iowa Workforce Development*

# Program Admission

In order to be considered for the Medical Assistant program, students must provide the Admissions office with official documents showing completion of all requirements. These documents must show:

- Updated assessment scores. -AND/OR-
- A transcript or degree audit showing successful completion of course requirements (i.e. developmental coursework).

It is the student's responsibility to:

- Monitor their progress towards meeting admissions requirements,
- Notify the Admissions office when requirements have been met, and
- Provide the Admissions office evidence of meeting the requirements.

## Apply at Hawkeye

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions.
3. Demonstrate College Readiness.

## College Readiness Admission Requirement

Students must meet minimum score requirements and/or successfully complete the required college success courses in English, reading, and math with a C- grade or higher at Hawkeye Community College or comparable courses at another accredited college. For appropriate college success course placement, work with your program advisor.

| | ALEKS | ACCUPLACER | COMPASS | ACT | ACCUPLACER Next Generation | GPA | Success Course * |
|---|---|---|---|---|---|---|---|
| **Math** | 30 | 85 Elementary Algebra | 42 Algebra | 19 | 259 Quantitative Reasoning, Algebra, and Statistics | 2.80 | MAT-063 Elementary Algebra |
| **Reading** | --- | 76 | 82 | 19 | 251 | 2.80 | RDG-040 College Preparatory Reading III |
| **Writing** | --- | 82 Sentence Skills | 65 | 19 | 253 | 2.80 | ENG-061 College Preparatory Writing II |

* Success course credits do not apply towards graduation or the diploma.

## Prerequisite Coursework

Successfully complete all program prerequisite courses with a minimum C- grade.

Once all prerequisite coursework is completed, contact the Admissions office immediately.

## Program Admittance

The Medical Assistant program registers 20 students each fall.

Applicants who successfully meet all admission criteria will be given an Eligible-Start Date to be Determined application status. The Eligible-Start Date to be Determined status date is according to the student's prerequisite completion date. If students share the same prerequisite completion date, the registration date for the final prerequisite course will be used.

The Admissions office provides Eligible-Start Date to be Determined candidates (if necessary) with anticipated start term updates up to two times a year in November and February.

It is the student's responsibility to keep their contact information up to date and to routinely check their Hawkeye email.

Changes are taking place within healthcare facilities nationally. These changes directly affect all health programs at Hawkeye Community College. The Joint Commission of Accreditation of Healthcare Organization (JCAHO), which accredits healthcare facilities across the country, enforced background screening September 2004 and has set requirements mandating that students in a healthcare field must now complete the same background check as hospital employees. As a Health student of Hawkeye Community College, you will be required to complete a criminal background check which includes fingerprinting that searches the following databases of sex offender, child abuse and dependent adult registry, and Medicare/Medicaid Fraud. The outcome could possibly affect your opportunities to participate in the clinical setting

# Medical Assistant Diploma Courses

| | |
|---|---|
| **Award** | Diploma |
| **Credits** | 32 |
| **Program Start** | Fall |
| **Time to Complete** | 1 year |
| **Class Meets** | Evening |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

- ◆ General education course.
- ► Course has a prerequisite and/or corequisite.

| Term 0 — Prerequisites * | | | |
|---|---|---|---|
| BIO-168 | Human Anatomy and Physiology I<br>*Minimum C- grade required* | 4 | |
| BIO-173 | Human Anatomy and Physiology II ►<br>*Minimum C- grade required* | 4 | |
| HSC-113 | Medical Terminology<br>*Minimum C- grade required* | 2 | |
| PSY-111 | Introduction to Psychology<br>*Minimum C- grade required* | 3 | |
| SPC-101 | Fundamentals of Oral Communication -OR-<br>*Minimum C- grade required* | 3 | ◆ |
| ENG-105 | Composition I ►<br>*Minimum C- grade required.* | 3 | ◆ |
| | | **Total Credits 16** | |

* A cumulative GPA of 2.50 or higher must be achieved for Term 0 — Prerequisite coursework.

| Term 1 | | | |
|---|---|---|---|
| CSC-110 | Introduction to Computers ► -OR- | 3 | ◆ |
| CSC-116 | Information Computing ► | 3 | ◆ |
| MAP-111 | Medical Office Management I | 3 | |
| MAP-225 | Med Lab Procedures I ► | 4 | |
| MAP-342 | Clinical Assisting I ► | 3 | |
| MAP-402 | Medical Law and Ethics | 2 | |
| | | **Total Credits 15** | |

| Term 2 | | |
|---|---|---|
| MAP-117 | Medical Office Management II ► | 3 |
| MAP-230 | Medical Laboratory Procedures II ► | 4 |
| MAP-343 | Clinical Assisting II ► | 3 |
| MAP-512 | Medical Assisting Pharmacology ► | 2 |
| | **Total Credits 12** | |

| Term 3 | | |
|---|---|---|
| MAP-841 | Medical Assisting Capstone ► | 2 |
| MAP-941 | Medical Assistant Practicum ► | 3 |
| | **Total Credits 5** | |

# Medical Laboratory Technology

The Medical Laboratory Technology program prepares you with 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, you will learn to test and analyze samples for clues to the absence, presence, extent, and causes of infections and diseases. You will also learn:

- Clinical laboratory techniques
- Lab equipment maintenance
- Sample collection and storage procedures
- Results reporting and record keeping

## Certification

Graduates are eligible to take the national certification exam from the American Society for Clinical Pathology (ASCP).

To identify the states in which Hawkeye's Medical Laboratory Technology program requirements fulfill the state guidelines for professional licensure and certification, visit the program web page at www.hawkeyecollege.edu/medical-laboratory-technology and click on the State Licensure Google Sheet link.

## Academic Affiliate Program

Hawkeye has academic affiliate arrangements that allows you to complete the first two semesters of the Medical Laboratory Technology program at an academic affiliate college, then complete the rest of the program at Hawkeye. Academic affiliate colleges include:

- North Iowa Area Community College (NIACC), Mason City, Iowa
- Northeast Iowa Community College (NICC), Calmar and Peosta, Iowa

## Accreditation

This program is accredited by the National Accrediting Agency for Clinical Laboratory Services (NAACLS), a non-profit organization that independently accredits clinical laboratory science programs.

NAACLS
5600 N. River Road, Suite 720
Rosemont, IL 60018-5119
773-714-8880
www.naacls.org

## Program Outcomes

| Graduation Year | Graduation Rate * | Certification Pass Rate | Placement Rate |
|---|---|---|---|
| **2020** | 92% | 100% | 100% |
| **2021** | 92% | 92% | 95% |
| **2022** | 96% | 100% | 100% |

* Graduation Rate: The percentage of students completing the program who started the final half of the program (defined as the start of the Fall semester in the second year).

## Careers

Graduates find employment in hospital, clinic, and independent laboratories as medical and clinical laboratory technicians.

### Example Careers and Average Wages

| | Entry | Average | Experienced |
|---|---|---|---|
| **Clinical Laboratory Technologists and Technicians** | 37,600 | $52,500 | $59,900 |

*Source: 2022 Iowa Wage Report, Iowa Workforce Development*

### Employers

The following is a partial list of employers who have hired graduates from this program:

| Business | Location |
|---|---|
| Mercy Iowa City | Iowa City, IA |
| MercyOne North Iowa Medical Center | Mason City, IA |
| MercyOne | Waterloo and Cedar Falls, IA |
| MercyOne Dubuque | Dubuque, IA |
| UnityPoint Health - Allen Hospital | Waterloo, IA |
| UnityPoint Health Finley Hospital | Dubuque, IA |
| University of Iowa Hospitals and Clinics | Iowa City, IA |

# Program Admission

In order to be considered for the Medical Laboratory Technology program, students must provide the Admissions office with official documents showing completion of all requirements. These documents must show:

- Updated assessment scores. -AND/OR-
- A transcript or degree audit showing successful completion of course requirements (i.e. developmental coursework).

It is the student's responsibility to:

- Monitor their progress towards meeting admissions requirements,
- Notify the Admissions office when requirements have been met, and
- Provide the Admissions office evidence of meeting the requirements.

## Apply at Hawkeye

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions.
3. Required biology course and College Readiness

## Required Biology Course and College Readiness Admission Requirements

In order to be eligible for the Medical Laboratory Technology program, all students must:

1. Meet minimum score requirements and/or successfully complete the required college success courses in English, reading, and math with a C- grade or higher at Hawkeye Community College or comparable courses at another accredited college. For appropriate college success course placement, work with your program advisor.
2. Successfully complete, with a C- grade or higher, a minimum of one year of high school biology or any college-level general education biological sciences course.

While Hawkeye Community College is accepting Pass/Fail grades as an institution, due to accreditation, Hawkeye is **not accepting College or High School Pass/Fail grades for any admission criteria**.

While working to meet these requirements, students will be accepted into the Medical Laboratory Technology pre-program. Pre-program students are able to complete the necessary success courses at the same time they are working on the required general education coursework, assuming all individual course prerequisites are satisfied. See the Medical Laboratory Technology Suggested Sequence of Study for the general education ◆ and program specific ★ courses.

| | ALEKS | ACCUPLACER | COMPASS | ACT | ACCUPLACER Next Generation | GPA |
|---|---|---|---|---|---|---|
| **Math** | 30 | 85 Elementary Algebra | 42 Algebra | 19 | 259 Quantitative Reasoning, Algebra, and Statistics | 2.80 |
| **Reading** | --- | 76 | 82 | 19 | 251 | 2.80 |
| **Writing** | --- | 82 Sentence Skills | 65 | 19 | 253 | 2.80 |

**Success Courses**

Success courses can be taken at Hawkeye Community College or comparable courses at another accredited college. For appropriate college success course placement, work with a program advisor.

Success course credits do not apply towards graduation requirements.

## Program Acceptance

Applicants who have completed all admissions requirements in steps 1 and 2 will be offered acceptance based on the date their applicant file was completed. If many students share the same date for completing their applicant file, the second criteria used will be the GPA from the prerequisite courses.

# Medical Laboratory Technology AAS Degree Courses

| | |
|---|---|
| **Award** | Associate of Applied Science (AAS) |
| **Credits** | 81 |
| **Program Start** | Fall, Spring |
| **Time to Complete** | 2 years |

As a student in a health program at Hawkeye Community College, and to participate in clinicals, you will be required to complete the following screenings: 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.

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023 or Spring 2024**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

- ◆ General education course.
- ► Course has a prerequisite and/or corequisite.
- ★ Program specific courses applicants meeting the general admission requirements may take prior to full acceptance to the Medical Laboratory Technology program.

**Students must achieve a minimum C- grade in all courses required to complete the program.**

Additional prerequisite coursework is required for program acceptance. See Admissions Requirements for more information.

| **Term 1 — Fall** | | | | |
|---|---|---|---|---|
| BIO-163 | Essentials of Anatomy and Physiology | | 4 | |
| CHM-122 | Introduction to General Chemistry ► | | 4 | |
| MLT-101 | Introduction to Lab Science | ★ | 2 | |
| PSY-111 | Introduction to Psychology -OR- | | 3 | ◆ |
| SOC-110 | Introduction to Sociology | | 3 | ◆ |
| SPC-101 | Fundamentals of Oral Communication | | 3 | |
| | | | **Total Credits 16** | |

| Term 2 — Spring | | | | |
|---|---|---|---|---|
| BIO-113 | General Biology II -OR- | | 4 | ◆ |
| CHM-132 | Introduction to Organic and Biochemistry ► | | 4 | ◆ |
| BIO-186 | Microbiology | | 4 | |
| ENG-105 | Composition I ► | | 3 | |
| HSC-113 | Medical Terminology | ★ | 2 | |
| MLT-103 | Lab Mathematics | ★ | 3 | |
| MLT-120 | Urinalysis | ★ | 3 | |
| | | **Total Credits** | **19** | |

| Term 3 — Summer | | | |
|---|---|---|---|
| MLT-110 | Fundamental Lab Techniques | ★ | 3 |
| MLT-130 | Hematology ► | ★ | 3 |
| MLT-250 | Clinical Microbiology ► | | 4 |
| | | **Total Credits** | **10** |

| Term 4 — Fall | | | |
|---|---|---|---|
| MLT-230 | Advanced Hematology ► | ★ | 3 |
| MLT-233 | Hemostasis and Thrombosis ► | | 2 |
| MLT-240 | Clinical Chemistry I ► | | 7 |
| MLT-252 | Parasitology | ★ | 1 |
| MLT-260 | Immunohematology ► | | 4 |
| MLT-270 | Immunology and Serology ► | | 2 |
| | | **Total Credits** | **19** |

| Term 5 — Spring | | | |
|---|---|---|---|
| MLT-285 | Clinical Practicum: Chemistry ► | | 4 |
| MLT-287 | Clinical Practicum: Hematology ► | | 4 |
| MLT-288 | Clinical Practicum: Microbiology ► | | 4 |
| | | **Total Credits** | **12** |

| Term 6 — Summer | | |
|---|---|---|
| MLT-283 | Clinical Practicum: Urinalysis ► | 1 |
| MLT-284 | Clinical Practicum: Immunohematology ► | 2 |
| MLT-286 | Clinical Practicum: Immunology and Serology ► | 1 |
| MLT-291 | Lab Survey and Review ► | 1 |
| | | **Total Credits 5** |

# Nursing

Nursing is a career that allows upward mobility from CNA, LPN, RN, BSN, to MSN.

## Practical Nursing (LPN) Program

Practical Nursing program courses begin with basic skills such as head to toe assessments and medication administration. Throughout the program you'll build your nursing foundation by covering health promotions throughout the lifespan and medical-surgical courses. Hands-on, real-life clinicals and simulated clinicals begin in term one.

Upon completion of the Practical Nursing (LPN) coursework, you will be eligible to take the Licensed Practical Nurse (LPN) licensure exam, PN-NCLEX, and begin working as an LPN.

## Associate Degree Nursing (RN) Program

Associate Degree Nursing (ADN) program courses take your Practical Nursing knowledge to the next level. Advanced assessments, skills, and pharmacology help transition to the next scope of practice. You'll continue to build your knowledge through hands on clinicals, labs, and courses covering medical, surgical, community, mental health, geriatric, pediatric, and maternal child populations. At the end of the program students learn about holistic care for both the patient and nurse and complete capstone.

Upon completion of the Associate Degree Nursing (ADN) coursework, you will be eligible to take the Registered Nurse (RN) licensure exam, RN-NCLEX.

## Hands-On Learning Experiences

- Van Gerpen Patient Simulator Laboratory: Train in the state-of-the-art simulation lab using realistic full-body manikins and simulators to replicate a range of hospital settings and patient scenarios in a controlled environment.
- Clinical: Gain real-world work experience in local clinics and hospitals, public mental health institutions, and community health agencies ensuring you have the skills you need to succeed in your future career.

## Licensure and Certification

Graduates are eligible to take both the LPN and ADN NCLEX exam for nursing.

This program prepares the student for licensure in Iowa. To identify the states in which Hawkeye's Nursing program requirements fulfill the state guidelines for professional licensure and certification, visit the program web page at www.hawkeyecollege.edu/programs/nursing and click on the State Licensure Google Sheet link.

For additional information see:

- National Council of State Boards of Nursing (NCSBN) Board of Nursing Professional Licensure Requirements: Professional nursing licensure requirements by state (www.ncsbn.org/14730.htm)
- Contact information for each state's professional licensure regulatory agency (www.ncsbn.org/contact-bon.htm)

## First-Time Licensed Practical Nurse Pass Rates *

| | 2020 | 2021 | 2022 |
|---|---|---|---|
| **Hawkeye PN-NCLEX Passing Percentage** | 98.08% | 92.86% | 96.43% |
| **National Passing Percentage** | | 92.18% | 91.54% |

* First-time pass rates within six months of completing the Practical Nursing coursework at Hawkeye.

## First-Time Registered Nurse Pass Rates *

| | 2020 | 2021 | 2022 |
|---|---|---|---|
| **Hawkeye RN-NCLEX Passing Percentage** | 71.62% | 80.49% | 95.12% |
| **National Passing Percentage** | | 82.42% | 82.27% |

* First-time pass rates within six months of completing the Associate Degree Nursing coursework at Hawkeye.

## Mission and Goals

The mission of the Hawkeye Community College Nursing Program is to prepare nurses for entry level professional nursing practice that meets the diverse health care needs of individuals, groups, and communities. Faculty facilitate and guide the education of students in the art and science of nursing to provide quality, ethical, holistic, and culturally competent collaborative care.

The goals of the nursing program at Hawkeye Community College are:

- To facilitate student success through an evidence-based curriculum that is student-centered.
- To provide a curriculum with dynamic clinical and simulation experiences.
- To provide a fair, firm, and consistent educational experience that prepares students for entry level practice.
- To prepare students for successful completion of the licensure examination.
- To maintain a nursing program that meets Iowa Board of Nursing regulatory standards.

## Pledge of the Nursing Program Faculty

The pledge of the Nursing program faculty at Hawkeye Community College is to prepare safe, competent, and confident entry-level professional nursing graduates.

## Professional Affiliation

This program is fully approved by the Iowa Board of Nursing:
400 S.W. 8th Street Suite B
Des Moines, IA 50309
nursing.iowa.gov

## 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.

### Upper Iowa University Nursing Dual Enrollment Accelerated Program

Start your Bachelor of Science in Nursing (BSN) at the University of Upper Iowa before graduating from Hawkeye!

Through this program students complete their Associate Degree in Nursing through Hawkeye while starting their BSN at Upper Iowa University during the summer semesters. To learn more about the Nursing Dual Enrollment Accelerated program at the University of Upper Iowa, visit uiu.edu/HawkeyeUIUNursing.

## Careers

Graduates work in hospitals, long term care, skilled facilities, physician's clinics, and specialty clinics and departments such as pediatrics, intensive care, surgical, psychiatric, obstetrics, and cardiology.

### Example Careers and Average Wages

| | Entry | Average | Experienced |
|---|---|---|---|
| **Nursing Assistants** | $28,300 | $32,400 | $34,500 |
| **Home Health and Personal Care Aides** | $23,800 | $29,600 | $31,500 |
| **Licensed Practical Nurses (LPN)** | $40,600 | $48,000 | $51,700 |
| **Registered Nurses** | $53,400 | $65,000 | $70,800 |

*Source: 2022 Iowa Wage Report, Iowa Workforce Development*

### Employers

The following is a partial list of employers who have hired graduates from this program:

| Business | Location |
|---|---|
| Mayo Clinic | Rochester, MN |

| Business | Location |
|---|---|
| MercyOne | Waterloo and Cedar Falls, IA |
| UnityPoint Health—Allen Hospital | Waterloo, IA |
| Universal Pediatrics | Cedar Rapids, IA |
| University of Iowa Hospitals and Clinics | Iowa City, IA |
| Waverly Health Center | Waverly, IA |

## Program Admission

In order to be considered for the Associate Degree Nursing (RN) or Practical Nursing (LPN) program, students must provide the Admissions office with official documents showing completion of all requirements. These documents must show:

- Updated assessment scores. -AND/OR-
- A transcript or degree audit showing successful completion of course requirements (i.e. developmental coursework).

It is the student's responsibility to:

1. Monitor their progress towards meeting admissions requirements.
2. Notify the Admissions office when requirements have been met.
3. Provide the Admissions office evidence of meeting the requirements.
4. Keep their contact information up to date and to routinely check their Hawkeye email.

### Apply at Hawkeye

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions.
3. Demonstrate College Readiness.

**If you are a graduate of an accredited Practical Nursing program**, please skip Step 2 and see Admission Requirements for Practical Nursing Graduates.

### College Readiness Admission Requirement

In order to be eligible for the Nursing program, students must meet minimum score requirements and/or successfully complete the required college success course with a C- grade or higher at Hawkeye Community College or comparable courses at another accredited college.

| | ALEKS | ACT | COMPASS | ACCUPLACER | ACCUPLACER Next Generation | GPA | Success Course * |
|---|---|---|---|---|---|---|---|
| **Math** | 30 | 19 | 42 Algebra | 85 Elementary Algebra | 259 Quantitative Reasoning, Algebra, and Statistics | 2.80 | MAT-063 Elementary Algebra |
| **English** | --- | 19 | 65 | 82 Sentence Skills -OR- 06 Essay | 253 Writing | 2.80 | ENG-061 College Preparatory Writing II |

| | ALEKS | ACT | COMPASS | ACCUPLACER | ACCUPLACER Next Generation | GPA | Success Course * |
|---|---|---|---|---|---|---|---|
| **Reading** | --- | 19 | 82 | 76 | 251 | 2.80 | RDG-040 College Preparatory Reading III |

* Success course credits do not apply towards graduation requirements. For appropriate success course placement, work with your Academic/College Success Advisor.

## Admission Requirements

**Admission Requirements for students who do not have a Practical Nursing degree**

Students who do not have a Practical Nursing degree must successfully complete the following:

1. All Term 0 — Prerequisite courses with required minimum grades

2. Two semesters of high school chemistry or CHM-122 Introduction to General Chemistry with a minimum C- grade.

Courses may be completed at Hawkeye Community College or any accredited transfer institution with the exception of HSC-108 Introduction to Health Professions which must be taken at Hawkeye.

**Admission Requirements for Practical Nursing Graduates**

Students who have graduated from a Practical Nursing program must:

1. Inform Hawkeye's Admissions office.
2. Provide proof of successful completion of a Practical Nursing program via official transcript.
3. Have successfully completed the following courses with required minimum grades:
    a. Two semesters of high school chemistry OR CHM-122 Introduction to General Chemistry (or equivalent) with a C- grade or higher.
    b. BIO-168 Human Anatomy and Physiology I with lab (or equivalent) with a B- grade or higher.
    c. BIO-173 Human Anatomy and Physiology II with lab (or equivalent) with a B- grade or higher.

While Hawkeye Community College is accepting Pass/Fail grades as an institution, due to accreditation, Hawkeye is **not accepting College or High School Pass/Fail grades for any admission criteria**.

## Application Status and Program Admittance

**Eligible-Start Date to be Determined (ETBD) Application Status**

Applicants who have successfully completed all admissions requirements will be given an Eligible-Start Date to be Determined (ETBD) application status.

The Eligible-Start Date to be Determined status date is according to the student's prerequisite completion date. If students share the same prerequisite completion date, the registration date for the final prerequisite course will be used.

**Your Anticipated Start Term**

The Admissions Office provides Eligible-Start Date to be Determined (ETBD) candidates with an anticipated start term update up to two times a year in November and February, if necessary.

**Program Admittance**

The Nursing program begins each fall and spring semester.

The Admissions Office begins the admittance process for the fall semester in March and in October for the spring semester.

**Admitted Students**

Students admitted to the Nursing program must:

- Be Healthcare Provider CPR certified.
- Have a physical exam in Hawkeye Community College format prior to the first day of clinical course work. Admission to the Nursing program is not based on the physical examination.
- Attend a Mandatory Compliance Training session.

Changes are taking place within healthcare facilities nationally. These changes directly affect all health programs at Hawkeye Community College. The Joint Commission of Accreditation of Healthcare Organization (JCAHO), which accredits healthcare facilities across the country, enforced background screening September 2004 and has set requirements mandating that students in a healthcare field must now complete the same background check as hospital employees. As a Health student of Hawkeye Community College, you will be required to complete a criminal background check which includes fingerprinting that searches the following databases of sex offender, child abuse and dependent adult registry, and Medicare/Medicaid Fraud. The outcome could possibly affect your opportunities to participate in the clinical setting

# Nursing: Associate Degree Nursing AAS Degree Courses

| | |
|---|---|
| **Award** | Associate of Applied Science (AAS) |
| **Credits** | 67 |
| **Enrollment** | Full-time |
| **Program Start** | Fall, Spring |
| **Time to Complete** | 2 years |
| **Course Format** | Face-to-Face |

As a student in a health program at Hawkeye Community College, and to participate in clinicals, you will be required to complete the following screenings: 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.

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023 or Spring 2024**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ► | Course has a prerequisite and/or corequisite. |
| **8WK1** | Course meets the first 8 weeks of the term. |
| **8WK2** | Course meets the second 8 weeks of the term. |

| Term 0 — Prerequisites | | |
|---|---|---|
| BIO-168 | Human Anatomy and Physiology I<br>*Minimum B- grade required.*<br>*Must be completed no more than five years prior to beginning Term 1.* | 4 |
| BIO-173 | Human Anatomy and Physiology II ►<br>*Minimum B- grade required.*<br>*Must be completed no more than five years prior to beginning Term 1.* | 4 |
| ENG-105 | Composition I ►<br>*Minimum C- grade required.* | 3 |
| HSC-108 | Introduction to Health Professions **<br>*Minimum C- grade required.*<br>*Must be taken at Hawkeye.* | 2 |
| HSC-168 | Nurse Aide ***<br>*Minimum C- grade required.* | 3.5 |
| | | **Total Credits 16.5** |

**Chemistry prerequisite:** In addition to the listed prerequisite coursework, students must have completed two semesters of high school chemistry or CHM-122 Introduction to General Chemistry with a minimum C- grade to be eligible for acceptance in the nursing program. See Admissions Requirements for more information.

*** HSC-168 Nurse Aide must be completed through an accredited college or show proof of CNA Registry. Applicants will need to provide an official transcript showing successful course completion or work with Admissions to confirm being on the Iowa Direct Care Worker Registry.

**Students must achieve an 80% in all non-prerequisite courses required to complete the program.**

| Term 1 | | | |
|---|---|---|---|
| PNN-117 | Nursing Clinical I ► | 8WK1 | 1 |
| PNN-118 | Nursing Clinical II ► | 8WK2 | 1 |
| PNN-115 | Introduction to Nursing ► | | 4 |
| PNN-116 | Introduction to Nursing Skills Lab ► | | 2 |
| PNN-122 | Introduction to Pharmacology ► | | 2 |
| PNN-216 | Health Promotion & Maintenance Across the Lifespan ► | | 2 |
| | Math Elective | | 3 |
| | | | **Total Credits 15** |

| Term 2 | | | |
|---|---|---|---|
| PNN-214 | Basic Health Alterations A ► | 8WK1 | 3 |
| PNN-218 | Nursing Clinical III ► | 8WK1 | 1 |
| PNN-215 | Basic Health Alterations B ► | 8WK2 | 3 |
| PNN-221 | Nursing Clinical IV ► | 8WK2 | 1 |
| PNN-319 | Issues and Trends in Practical Nursing Leadership ► | 8WK2 | 2 |
| BIO-151 | Nutrition | | 3 |
| PNN-219 | Foundations of Nursing Skills Lab ► | | 2 |
| | | **Total Credits** | **15** |

Students are strongly encouraged to take the LPN licensure exam after Term 2 coursework has been completed and must successfully pass the LPN licensure exam by the end of Term 3.

Upon passing the LPN licensure exam, students will then have the option to begin working as an LPN.

| Term 3 | | | |
|---|---|---|---|
| ADN-121 | Transition to Professional Nursing ► | 8WK1 | 2 |
| ADN-128 | Community and Mental Health Nursing ► | 8WK2 | 2 |
| ADN-122 | Advanced Nursing Skills ► | | 2 |
| ADN-124 | Complex Health Alterations ► | | 3 |
| ADN-125 | Nursing Clinical V ► | | 2 |
| ADN-231 | Advanced Pharmacology ► | | 2 |
| PSY-111 | Introduction to Psychology | | 3 |
| SPC-101 | Fundamentals of Oral Communication | | 3 |
| | | **Total Credits** | **19** |

| Term 4 | | |
|---|---|---|
| ADN-224 | Complex Health Alterations B ► | 3 |
| ADN-225 | Nursing Clinical VI ► | 2 |
| ADN-226 | Complex Maternal Child Health Alterations ► | 3 |
| ADN-227 | Nursing Clinical Community and Special Populations ► | 2 |
| ADN-331 | Issues in Nursing Management ► | 2 |
| ADN-333 | Holistic Client Care ► | 2 |
| BIO-186 | Microbiology | 4 |
| | **Total Credits** | **18** |

| Math Electives | |
|---|---|
| MAT-102 Intermediate Algebra | 4 |
| MAT-110 Math for Liberal Arts ► | 3 |
| MAT-121 College Algebra ► | 4 |
| 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 |

# Practical Nursing Diploma Courses

| | |
|---|---|
| **Award** | Diploma |
| **Credits** | 30 |
| **Program Start** | Fall, Spring |
| **Time to Complete** | 1 year |
| **Course Format** | Face-to-Face |

As a student in a health program at Hawkeye Community College, and to participate in clinicals, you will be required to complete the following screenings: 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.

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023 or Spring 2024**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ► | Course has a prerequisite and/or corequisite. |
| **8WK1** | Course meets the first 8 weeks of the term. |
| **8WK2** | Course meets the second 8 weeks of the term. |

| Term 0 — Prerequisites | | |
|---|---|---|
| BIO-168 | Human Anatomy and Physiology I<br>*Minimum B- grade required.*<br>*Three attempt retake policy.*<br>*Must be completed no more than five years prior to beginning Term 1.* | 4 |
| BIO-173 | Human Anatomy and Physiology II ►<br>*Minimum B- grade required.*<br>*Three attempt retake policy.*<br>*Must be completed no more than five years prior to beginning Term 1.* | 4 |
| ENG-105 | Composition I ►<br>*Minimum C- grade required.* | 3 |
| HSC-108 | Introduction to Health Professions<br>*Minimum C- grade required.*<br>*Must be taken at Hawkeye.* | 2 |
| HSC-168 | Nurse Aide ***<br>*Minimum C- grade required.* | 3.5 |
| | | **Total Credits 16.5** |

**Chemistry prerequisite:** In addition to the listed prerequisite coursework, students must have completed two semesters of high school chemistry or CHM-122 Introduction to General Chemistry with a minimum C- grade to be eligible for acceptance in the nursing program. See Admissions Requirements for more information.

*** HSC-168 Nurse Aide must be completed through an accredited college or show proof of CNA Registry. Applicants will need to provide an official transcript showing successful course completion or work with Admissions to confirm being on the Iowa Direct Care Worker Registry.

**Students must achieve an 80% in all non-prerequisite courses required to complete the program.**

| Term 1 | | | |
|---|---|---|---|
| PNN-117 | Nursing Clinical I ► | 8WK1 | 1 |
| PNN-118 | Nursing Clinical II ► | 8WK2 | 1 |
| PNN-115 | Introduction to Nursing ► | | 4 |
| PNN-116 | Introduction to Nursing Skills Lab ► | | 2 |
| PNN-122 | Introduction to Pharmacology ► | | 2 |
| PNN-216 | Health Promotion & Maintenance Across the Lifespan ► | | 2 |
| | Math Elective | | 3 |
| | | | **Total Credits 15** |

| Term 2 | | | |
|---|---|---|---|
| PNN-214 | Basic Health Alterations A ► | 8WK1 | 3 |
| PNN-218 | Nursing Clinical III ► | 8WK1 | 1 |
| PNN-215 | Basic Health Alterations B ► | 8WK2 | 3 |
| PNN-221 | Nursing Clinical IV ► | 8WK2 | 1 |
| PNN-319 | Issues and Trends in Practical Nursing Leadership ► | 8WK2 | 2 |
| BIO-151 | Nutrition | | 3 |
| PNN-219 | Foundations of Nursing Skills Lab ► | | 2 |
| | | **Total Credits** | **15** |

| Math Electives | | |
|---|---|---|
| MAT-102 | Intermediate Algebra | 4 |
| MAT-110 | Math for Liberal Arts ► | 3 |
| MAT-121 | College Algebra ► | 4 |
| 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 |

# Occupational Therapy Assistant

The Occupational Therapy Assistant program prepares you with the entry-level skills and knowledge to provide persons, groups, and populations with treatments that improve their ability to achieve independence in everyday activities and to enjoy life to its fullest.

Students will have opportunities to:

- Develop and provide interventions that focus on occupations for persons, groups, and populations experiencing various impairments.
- Monitor persons and groups progress while following an occupational therapy plan of care.
- Effectively educate and communicate with persons, groups, populations, families, and other healthcare providers.
- Teach persons, groups, and populations to use adaptive equipment or modifying tasks to increase successful participation in meaningful occupations.
- Educate persons, groups, and populations in health and wellness.
- Meet with community experts and learn about their area of expertise.
- Use knowledge gained to participate in fieldwork at a variety of community and medical settings.
- Investigate topics as you begin your pathway to a life-long learner.
- Interact with other health profession students.

*Students should be aware that a felony conviction can have a serious and negative impact on eligibility for certification and NBCOT Early Determination Review as an Occupational Therapy Assistant.*

## Hands-On Learning Opportunities

- Occupational Therapy Assistant students gain hands-on experience through patient scenario simulation. These scenarios replicate all rehabilitation settings.
- Clinical: Gain 600 hours of real-world work experience ensuring you have the skills you need to succeed in your future career.
- Education and use of a variety of lab assessments and assistive devices.

## Accreditation

ACOTE®
Accreditation Council for Occupational Therapy Education

The associate-degree-level occupational therapy assistant program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 6116 Executive Boulevard, Suite 200, North Bethesda, MD 20852-4929. ACOTE's telephone number c/o AOTA is (301) 652-AOTA and its web address is www.acoteonline.org. Graduates of the program will be eligible to sit for the national certification examination for the occupational therapy assistant administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of this exam, the individual will be a Certified Occupational Therapy Assistant (COTA). In addition, all

states require licensure in order to practice; however, state licenses are usually based on the results of the NBCOT Certification Examination. Note that a felony conviction may affect a graduate's ability to sit for the NBCOT certification examination or attain state licensure.

Hawkeye Community College Accreditation (www.hawkeyecollege.edu/about/institutional-research-and-accreditation)

## National Certification Examination

All states require licensure in order to practice. State licensure is usually based on the results of the National Board for Certification in Occupational Therapy (NBCOT) Certification Examination (www.nbcot.org/Educators-Folder/SchoolPerformance).

Successful completion of this program qualifies the student to test for license/certification in the state of Iowa.

Graduates who successfully pass the National Board Certification for Occupational Therapy and have their scores immediately sent to designated states are able to practice once the individual state's licensure criteria is met. Graduates who have been practicing and plan to move to a different state need to review that state's occupational therapy practice acts. As a member of the American Occupational Therapy Association (AOTA) you have access to the OTA licensure requirements by state.

To identify the states in which Hawkeye's Occupational Therapy Assistant program requirements fulfill the state guidelines for professional licensure and certification, visit the program web page at www.hawkeyecollege.edu/programs/occupational-theray-assistant and click on the State Licensure Google Sheet link.

Also see the American Occupational Therapy Association Career Licensure (www.aota.org/career/state-licensure) for more information about state licensure.

| Graduation Year | Students Entering/Graduating | Graduation Rate | First-Time Test Takers | First-Time Test Takers Who Passed the Exam |
|---|---|---|---|---|
| **2018** | 18/15 | 83% | 14 | 93% |
| **2019** | 17/15 | 88% | 9 | 60% |
| **2020** | 16/13 | 81% | 11 | 100% |
| **2021*** | 8/4 | 50% | 4 | 100% |
| **2022** | 12/7 | 58.33% | 7 | 86% |
| **Total** | **71/54** | **71.12%** | **44** | **88%** |

* COVID-19 Pandemic

## Occupational Therapy Assistant Program Mission

The mission of the Occupational Therapy Assistant program is to prepare qualified healthcare practitioners to work in collaboration with others for a better community and inspire lifelong learning.

# Occupational Therapy Assistant Program Mission in Alignment with the Hawkeye Community College Mission

The Occupational Therapy Assistant program mission mirrors that of the College in stressing the importance "empowering students and enriching communities" (Hawkeye Community College, 2021) and "improving the communities we serve" (Hawkeye Community College, 2021). As occupational therapy practitioners, Occupational Therapy Assistant program graduates will learn the value of continual skill improvement and the importance of continued expansion of their treatment techniques and strategies. Investigation of global-wide solutions to impairment of occupational performance will be explored in multiple didactic courses and fieldwork experiences, furthering students' readiness for providing occupational therapy services to diverse populations within the communities they live.

## Associations

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

## Careers

Occupational therapy assistants work in a wide variety of settings including homes, hospitals, rehabilitation clinics, community centers, outpatient facilities, schools, and nursing homes.

### Example Careers and Average Wages

| | Entry | Average | Experienced |
|---|---|---|---|
| **Occupational Therapy Assistants** | $44,200 | $57,000 | $63,300 |

*Source: 2022 Iowa Wage Report, Iowa Workforce Development*

### Employers

The following is a partial list of employers who have hired graduates from this program:

| Business | Location |
|---|---|
| Blue Stone Therapy | Locations throughout Iowa |
| Mercy Medical Center | Cedar Rapids, Iowa |
| Millennium Therapy | Locations throughout Iowa |
| Northern Iowa Therapy | Locations throughout Iowa |
| Rehab Visions | Locations throughout Iowa |
| Reliant Rehab | Locations throughout Iowa |
| Unity Point — Allen Hospital | Waterloo, IA |

| Business | Location |
|---|---|
| Western Home Communities | Cedar Falls, IA |

## Program Admission

In order to be considered for the Occupational Therapy Assistant program, students must provide the Admissions office with the appropriate documentation showing completion of all requirements. Appropriate documentation consists of:

- Updated assessment scores. -AND/OR-
- A transcript or degree audit showing successful completion of course requirements (i.e. developmental coursework).

It is the student's responsibility to:

1. Monitor their progress towards meeting admissions requirements,
2. Notify the Admissions office when requirements have been met, and
3. Provide the Admissions office evidence of meeting the requirements.

### Apply at Hawkeye

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions.
3. Demonstrate College Readiness.

### College Readiness Admission Requirement

Students must meet minimum score requirements and/or successfully complete the required college success courses in English, reading, and math with a C- grade or higher at Hawkeye Community College or comparable courses at another accredited college. For appropriate college success course placement, work with your program advisor.

| | ALEKS | ACCUPLACER | COMPASS | ACT | ACCUPLACER Next Generation | GPA | Success Course * |
|---|---|---|---|---|---|---|---|
| **Math** | 30 | 85 Elementary Algebra | 42 Algebra | 19 | 259 Quantitative Reasoning, Algebra, and Statistics | 2.8 | MAT-063 Elementary Algebra |
| **English** | --- | 82 Sentence Skills | 65 | 19 | 253 Writing | 2.8 | ENG-061 College Preparatory Writing II |
| **Reading** | --- | 76 | 82 | 19 | 251 | 2.8 | RDG-040 College Preparatory Reading II |

* Success course credits do not apply towards graduation requirements.

### Pre-Program Prerequisite Coursework

- Prerequisite coursework may be completed at Hawkeye Community College or transferred in from an accredited educational institution, with the exception of HSC-108 Introduction to Health Professions, which must be completed at Hawkeye.

- All prerequisite courses must be completed with a grade of a "C-" or higher. BIO-168 and BIO-173 must be completed with a grade of "B-" or higher.

- Students must achieve a 2.75 minimum cumulative GPA in the prerequisite courses.

See the suggested sequence of study for a list of prerequisite courses.

**Learning Contract Process**

Students who may be missing a few fall prerequisite courses can initiate the Learning Contract Process to complete fall prerequisite coursework and continue on in the program.

To enroll in the Learning Contract Process:

1. Students must have a GPA of 2.75 or higher.
2. Contact the Program Director to request the Learning Contract Process documents.
3. Complete and return the Learning Contract Process documents to the Program Director no later than one week before the spring semester.
4. The Program Director, Academic Fieldwork Coordinator, and assigned Pre-Program Advisor will meet to discuss the information. Once a decision has been made, the Program Director will email the student informing them of the decision.
5. If approved, the student will work with their Pre-Program Advisor to register for spring courses. Students must register for 13 credits or less in the first spring semester.
6. Approved students will meet with the Program Director, either virtually or face-to-face, to finalize the Learning Contract Process.

## Program Admittance / Admissions Processing Points

The Occupational Therapy Assistant program registers 20 students each spring.

Applicants who successfully meet all admission criteria will be given an Eligible-Start Date to be Determined application status. The Eligible-Start Date to be Determined status date is according to the student's prerequisite completion date. If students share the same prerequisite completion date, the registration date for the final prerequisite course will be used.

The Admissions Office admits Eligible-Start Date to be Determined candidates ongoing for the next available processing term. Once seat capacity has been reached remaining Eligible-Start Date to be Determined candidates will continue to be considered and contacted accordingly, should a seat become available.

It is the student's responsibility to keep their contact information up to date and to continually check their Hawkeye email.

**Mandatory Seminar**

The Occupational Therapy Assistant program will offer mandatory one-hour seminars in the fall semester. Students must participate in one of the mandatory seminars prior to complete the admission process.

**Background Screening**

Changes are taking place within healthcare facilities nationally. These changes directly affect all health programs at Hawkeye Community College. The Joint Commission of Accreditation of Healthcare Organization (JCAHO), which accredits healthcare facilities across the country, enforced background screening September 2004 and has set requirements mandating that students in a healthcare field must now complete the same background check as hospital employees. As a Health student of Hawkeye Community College, you will be required to complete a criminal background check which includes fingerprinting that searches the following databases of sex offender, child abuse and dependent adult registry, and Medicare/Medicaid Fraud. The outcome could possibly affect your opportunities to participate in the clinical setting and the ability to take the national examination.

# Occupational Therapy Assistant AAS Degree Courses

| | |
|---|---|
| **Award** | Associate of Applied Science (AAS) |
| **Credits** | 59 |
| **Enrollment** | Full-time |
| **Program Start** | Spring |
| **Time to Complete** | 1½ years |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Spring 2024**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ► | Course has a prerequisite and/or corequisite. |
| **8WK1** | Course meets the first 8 weeks of the term. |
| **8KW2** | Course meets the second 8 weeks of the term. |

## Program Technology Requirements

The prerequisite courses for the Occupational Therapy Assistant program consists of online, hybrid, and face-to-face courses. **Students need to have a working computer**, preferably a laptop, **and internet service** to complete assignments and assessments in the prerequisite and Occupational Therapy Assistant professional courses.

Computer requirements:

- Processor: i3 or i5
- RAM: 8 – 16 GB
- Hard drive: 256 – 512 GB SSD. No hybrid drives.

## Prerequisite Coursework

A minimum cumulative GPA of 2.75 is required for prerequisite courses with no lower than a "C-" grade in any individual prerequisite course except BIO-168 and BIO-173 which require a minimum grade of "B-".

Students are responsible for retaining knowledge of completed college courses, in particular, Anatomy and Physiology courses. This information will be used in many of the OTA courses. There are many videos online in which students are recommended to review to prepare for the OTA courses.

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

| **Term 0 — Pre-Program Prerequisites** | | |
|---|---|---|
| BIO-168 | Human Anatomy and Physiology I | 4 |
| BIO-173 | Human Anatomy and Physiology II ► | 4 |
| ENG-105 | Composition I ► | 3 |
| HSC-108 | Introduction to Health Professions | 2 |
| PSY-111 | Introduction to Psychology | 3 |
| | | **Total Credits 16** |

## OTA Professional Courses

| **Term 1 — Spring** | | |
|---|---|---|
| HSC-113 | Medical Terminology | 2 |
| MAT-110 | Math for Liberal Arts ► | 3 |
| OTA-101 | Introduction to OT | 3 |
| OTA-120 | Neuroanatomy for the OTA ► | 3 |
| SPC-101 | Fundamentals of Oral Communication | 3 |
| | | **Total Credits 14** |

| Term 2 — Summer | | | |
|---|---|---|---|
| OTA-102 | Human Movement and Occupation ► * | | 3 |
| OTA-103 | Task Analysis ► * | | 3 |
| OTA-105 | OTA and Professional Issues I ► | | 2 |
| | | **Total Credits** | **8** |

* OTA-102 and OTA-103 are hybrid classes. Lectures are online and labs are on campus.

| Term 3 — Fall | | | |
|---|---|---|---|
| OTA-201 | Pediatrics and Occupation ► | 8WK1 | 3 |
| OTA-202 | Pediatric OTA Skills ► | 8WK1 | 3 |
| OTA-204 | Pediatric Psychosocial Conditions and Occupations ► | 8WK1 | 1 |
| OTA-221 | Level I Fieldwork Pediatrics ► | 8WK1 | 1 |
| OTA-222 | OTA and Professional Issues II ► | 8WK1 | 1 |
| OTA-311 | Adult Psychosocial Conditions and Occupations ► | 8WK2 | 2 |
| OTA-312 | Adult Psychosocial OTA Skills ► | 8WK2 | 2 |
| OTA-313 | Level I Fieldwork Psychosocial ► | 8WK2 | 1 |
| OTA-314 | Management and the OTA ► | 8WK2 | 3 |
| | | **Total Credits** | **17** |

| Term 4 — Spring | | | |
|---|---|---|---|
| OTA-315 | Adult Physical Conditions and Occupations ► | 8WK1 | 2 |
| OTA-316 | Physical OTA Skills ► | 8WK1 | 2 |
| OTA-401 | Elders and Occupation ► | 8WK1 | 2 |
| OTA-402 | OTA Skills for Elders ► | 8WK1 | 2 |
| OTA-403 | Level I Fieldwork Physical Dysfunction ► | 8WK1 | 1 |
| OTA-502 | Level II Fieldwork A ► | 8WK2 | 5 |
| | | **Total Credits** | **14** |

| Term 5 — Summer | | | |
|---|---|---|---|
| OTA-503 | Level II Fieldwork B ► | | 5 |
| OTA-504 | Student to Clinician ► | | 1 |
| | | **Total Credits** | **6** |

# Physical Therapist Assistant

The physical therapist assistant teams with physical therapists to help people live active and healthy lives. They help people rehabilitate from devastating injuries, manage chronic conditions, and oftentimes avoid surgery and use of prescription drugs. The physical therapist assistant will help improve patients' mobility and lessen physical disabilities.

The Physical Therapist Assistant program prepares you with the entry-level skills and knowledge to provide rehabilitative patient care to people of all ages and abilities in a variety of healthcare settings.

The physical therapist assistant student will learn:

- Physical therapy interventions including monitoring and adjustment based on real clinical educational experiences and simulated patient scenarios.
- Data collection by way of patient treatment interventions and objective assessment techniques.
- How to instruct patients in exercise and therapeutic modalities to improve pain and functional mobility.
- How to effectively educate and communicate with patients, families, and other healthcare providers.
- Value life-long professional development through learning opportunities and skill and knowledge advancement.

The physical therapist assistant can have a profound effect on people's lives.

## Hands-On Learning Opportunities

Physical Therapist Assistant students gain hands-on experience, replicating all clinical settings, through daily patient scenario simulations. Students participate in discipline specific and interdisciplinary collaborations while in the health sciences simulation lab. Throughout the program, students obtain a total of 640 clinical education hours, under the supervision of a clinical instructor who helps provide work-world experience.

## Is Physical Therapist Assistant the Career Path for Me?

If you can answer yes to the questions below, a career as a physical therapist assistant may be a good fit for you.

- Do you enjoy helping people achieve a better quality of life?
- Do you enjoy working as part of a team toward a common goal?
- Do you have a compassionate and caring personality?
- Can you:
    - Sit, bend, reach, and/or walk and stand for most of the day?
    - Lift and carry up to 35% of your own body weight?
    - Communicate effectively in written and verbal forms?
    - Place the needs of a patient above your own?
    - Use your vision and touch for patient assessment?
    - Use your fine and gross motor skills to assist a patient?

## Certification and Licensure

Successful completion of the Physical Therapist Assistant program qualifies the graduate to take the National Physical Therapy Assistant Examination (NPTAE) and also to apply for state licensure. The NPTAE is a national exam; therefore, a graduate may seek employment in a state of their choice after successfully passing the exam and passing a state background check. Most states require a background check of the graduate prior to issuance of the state license.

To identify the states in which Hawkeye's Physical Therapist Assistant program requirements fulfill the state guidelines for professional licensure and certification, visit the program web page and click on the State Licensure Google Sheet link.

Also see The Federation of State Boards of Physical Therapy, Licensing Authorities Contact Information at www.fsbpt.org/Free-Resources/Licensing-Authorities-Contact-Information.

## Accreditation

The Physical Therapist Assistant Program at Hawkeye Community College is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE), 3030 Potomac Ave., Suite 100, Alexandria, Virginia 22305-3085; telephone: 703-706-3245; email: accreditation@apta.org; website: www.capteonline.org. If needing to contact the program/institution directly, please call 319-296-4434 or email melissa.schneider@hawkeyecollege.edu.

## Program Statistics

**Graduation Rates**

| Year of Graduation | Yearly Graduation Rate | 2-Year Average Graduation Rate |
|---|---|---|
| **2022** | 84.6% | 79.8% |
| **2021** | 75% | 84.2% |
| **2020** | 93.3% | 91.7% |

**Licensure Pass Rates**

| Year of Graduation | Total Graduates | Graduates Taking Licensure Exam | Total Passing on 1st Attempt | Total Passing on Subsequent Attempts | Ultimate Pass Rate | 2-Year Average Pass Rate |
|---|---|---|---|---|---|---|
| **2022** | 11 | 10 | 6 | 6 | TBD * | 70% |
| **2021** | 12 | 10 | 5 | 8 | 80% | 86.5% |
| **2020** | 14 | 14 | 13 | 13 | 92.8% | 87.7% |

* The Ultimate Pass Rate will be determined as graduates reattempt the NPTE.

**Employment Rates**

Employment is reported six months after licensure.

| Year of Graduation | Graduates Seeking Employment | Graduates Employed | Graduates Pursuing Further College Education | Employed | 2-Year Average Employment |
|---|---|---|---|---|---|
| **2022** | 10 | 10 | 0 | TBD | TBD |

| Year of Graduation | Graduates Seeking Employment | Graduates Employed | Graduates Pursuing Further College Education | Employed | 2-Year Average Employment |
|---|---|---|---|---|---|
| **2021** | 12 | 10 | 0 | 100% | 100% |
| **2020** | 13 | 13 | 2 | 100% | 86% |

## Program Mission Statement

The mission of the Hawkeye Community College Physical Therapist Assistant program is to meet the physical therapy needs of the community by preparing graduates who, under the direction and supervision of a physical therapist, provide quality physical therapy care to patients/clients. The program facilitates student attainment of the knowledge, skills, values and behaviors essential to function as a physical therapist assistant by providing quality, student-centered learning experiences based upon contemporary educational theory designed to maximize student success.

## Program Philosophy

We believe individuals have unique learning styles. Therefore, the Physical Therapist Assistant program will provide visual, auditory, and kinesthetic learning opportunities through a combination of lecture, lab, and clinical education to allow each student to have an optimal learning opportunity.

We believe to be a productive member of a health care team, the graduate, and thus a student in this program, needs to accept responsibility for their own learning. Therefore, active student participation in all aspects of the learning process will be encouraged and expected.

We believe that effective clinicians not only possess knowledge and skills, but compassion for and dedication to the patients/clients they serve. Therefore, we emphasize interpersonal skills development to prepare the student to provide the appropriate psychosocial support for patients and their families, as well as work effectively as part of a health care team.

## Program Goals and Outcome Objectives

Upon completion of the Physical Therapist Assistant program, graduates will:

**Goal 1: Work under the supervision of a physical therapist in a manner that meets the American Physical Therapy Association (APTA) expectations; including state licensure rules, practice act guidelines, and professional behavior standards.**

Objectives for Goal 1:

1. Adhere to federal and state legal practice standards.
2. Adhere to the APTA's Guide for Conduct for the Physical Therapist Assistant and the Standards of Ethical Conduct for the Physical Therapist Assistant.
3. Adhere to employer's policies and procedures when working as a physical therapist assistant.
4. Demonstrate the APTA's Values Based Behavior for the PTA that consistently meets the expectations of the employer, physical therapy profession and patient community.
5. Seek clarification from the supervising physical therapist if there is uncertainty regarding the plan of care or the application of any intervention.
6. Insure patient safety, privacy, rights and dignity.

7. Recognize and respect individual differences in all interactions.

**Goal 2: Deliver safe, competent physical therapy interventions to include monitoring and adjusting them based upon patient response and in accordance with the plan of care developed by the physical therapist.**

Objectives for Goal 2:

1. Implement competent interventions based on the plan of care after review of all appropriate documentation including the medical record, initial evaluation, plan of care established by the physical therapist, and other appropriate physical therapy documents.

2. Deliver interventions safely for the patient, the physical therapist assistant and others within the patient care environment.

3. Select the appropriate modification to an intervention when patient response dictates a needed change to provide for patient safety, comfort or progression.

4. Communicate with the supervising physical therapist when there is a change in patient status or a modification to the intervention needed that falls outside the plan of care or the scope of skills of the physical therapist assistant.

5. Identify when an intervention is beyond one's level of skill and seek additional training as appropriate before initiating the intervention in a patient care situation.

6. Participate in discharge planning and follow up.

**Goal 3: Perform tests and measures essential for carrying out the plan of care and modifying interventions based upon the patient's response.**

Objectives for Goal 3:

1. Effectively use data collection tools and verbal and non-verbal communication with the patient to accurately determine their response to interventions.

2. Select the appropriate modification to an intervention when patient response dictates a needed change to provide for patient safety, comfort or progression.

3. Communicate with the supervising physical therapist when there is a change in patient status or a needed modification to the intervention that falls outside the plan of care or the scope of skills of the physical therapist assistant.

4. Effectively progress patient towards the desired outcome/goals outlined in the plan of care.

**Goal 4: Use effective oral, written, and nonverbal communication with the supervising physical therapist, patients and their families, other health care providers, all stakeholders, and all patient care members.**

Objectives for Goal 4:

1. Provide effective instruction to patients/clients, family members, and caregivers using various learning styles to meet their needs and to assist with achievement of goals as outlined in the plan of care.

2. Select the appropriate response to a conflict and seek a resolution that is appropriate to the situation.

3. Produce documentation that is legible, concise accurate and in keeping with institutional standards.

4. Communicate accurately and timely with the supervising physical therapist.

5. Communicate effectively with other members of the health care team and other stakeholders.

**Goal 5: Demonstrate effective time management and an awareness of fiscal responsibility, quality improvement, performance improvement activities, professional timeliness, and levels of role responsibility within their employment setting.**

Objectives for Goal 5:

1. Use physical therapy equipment and material resources in a safe, cost-effective, and efficient manner.
2. Direct and supervise support personnel as appropriate for non-patient care tasks.
3. Provide accurate and timely billing information.
4. Interact effectively with other health professionals engaged with patient care, recognizing their specific roles as it relates to the patient.
5. Use equipment in a manner that maintains its effectiveness.
6. Use time efficiently and effectively.

**Goal 6: Value the need for life-long professional development through learning and enabling opportunities, skill advancement, continuing education opportunities, thus further enriching their local communities.**

Objectives for Goal 6:

1. Seek out opportunities to advance skills and knowledge.
2. Promote the profession of physical therapy to the public.
3. Utilize ongoing assessment tools to identify areas of strengths and weaknesses.
4. Participate in professional activities.
5. Contribute to the community in a positive manner.

**Goal 7: Represent APTA core values; accountability, altruism, collaboration, compassion and caring, duty, excellence, inclusion, integrity, and social responsibility.**

Objectives for Goal 7:

1. Actively accept and practice to the standards of the APTA values.
2. Assume responsibility of patient and client needs.
3. Collaborate effectively with all healthcare stakeholders.
4. Demonstrate compassion and care for another's experience.
5. Commit to providing effective physical therapy services.
6. Consistently practice through use of current techniques and incorporate new techniques through evidence-based research.
7. Provide a welcoming, equitable environment for all.
8. Adhere to high ethical principles and standards.
9. Promote a mutual trust between the physical therapy profession and the communities served.

# Careers

Physical therapist assistants work in a wide variety of settings including hospitals, outpatient clinics, inpatient rehabilitation facilities, pediatric settings, home health settings, skilled rehab and residential care facilities.

## Example Careers and Average Wages

| | Entry | Average | Experienced |
|---|---|---|---|
| **Physical Therapist Assistants** | $44,500 | $54,200 | $59,000 |

*Source: 2022 Iowa Wage Report, Iowa Workforce Development*

For additional wage information see www.salary.com/research/salary/alternate/pta-salary/ia.

## Employers

The following is a partial list of employers who have hired graduates from this program:

| Business | Location |
|---|---|
| Athletico | Locations throughout Iowa |
| MercyOne | Waterloo, IA |
| Millennium Therapy | Locations throughout Iowa |
| Northern Iowa Therapy | Locations throughout Iowa |
| Reliant Rehabilitation | Locations throughout Iowa |
| UnityPoint Health | Waterloo, IA |

# Program Admission and Requirements

In order to be considered for the Physical Therapist Assistant program, students must provide the Admissions office with the appropriate documentation showing completion of all requirements. Appropriate documentation consists of:

- Updated assessment scores. -AND/OR-
- A transcript or degree audit showing successful completion of course requirements (i.e. developmental coursework).

It is the student's responsibility to:

1. Monitor his/her progress towards meeting admissions requirements,
2. Keep their contact information up to date and to routinely check their Hawkeye email,
3. Notify the Admissions office when requirements have been met, and
4. Provide the Admissions office evidence of meeting the requirements.

## Apply at Hawkeye

1. Apply for admission at Hawkeye.

2. Send official transcripts to Admissions.
3. Demonstrate College Readiness.

## College Readiness Admission Requirement

Students must meet minimum score requirements and/or successfully complete the required college success courses in English, reading, and math with a C- grade or higher at Hawkeye Community College or comparable courses at another accredited college. For appropriate college success course placement, work with your Academic/College Success Advisor.

| | ALEKS | ACCUPLACER | COMPASS | ACT | ACCUPLACER Next Generation | GPA | Success Course * |
|---|---|---|---|---|---|---|---|
| **Math** | 30 | 85 Elementary Algebra | 42 Algebra | 19 | 259 QAS | 2.80 | MAT-063 Elementary Algebra |
| **English** | --- | 82 Sentence Skills -OR- 06 Essay | 65 English | 19 | 253 Writing | 2.80 | ENG-061 College Preparatory Writing II |
| **Reading** | --- | 76 Reading | 82 Reading | 19 | 251 Reading | 2.80 | RDG-040 College Preparatory Reading III |

* Success course credits do not apply towards graduation requirements.

## Prerequisite Coursework / Observation Hours

Please work with an Academic/College Success Advisor to assure understanding of academic expectations.

**Prerequisite Coursework**

- **Minimum grade requirements:**
  - BIO-168 Human Anatomy and Physiology I must be completed with a minimum grade of B-
  - All remaining Term 0 – Prerequisite courses must be completed with a minimum grade of a C-

- **Minimum cumulative GPA:** Students must achieve a 3.00 minimum cumulative GPA in the prerequisite courses.

Courses may be completed at Hawkeye Community College or at any accredited transfer institution.

While Hawkeye Community College does issue Pass/Fail grades for some courses, accreditation requirements of the Physical Therapist Assistant program will **not accept college or high school pass/fail grades for any admission criteria**.

**Observation Hours**

Pre-program Physical Therapist Assistant students must complete their observation hours by the end of Term 0.

A minimum of 16 observation hours are required: 8 observation hours in an inpatient setting and 8 observation hours in an outpatient setting.

**All observation hours must be complete and submitted to the director of the Physical Therapist Assistant program by December 1.** Please plan your observation hours well in advance of this deadline as a courtesy to the physical therapy companies in our communities.

Please see the Physical Therapist Assistant Pre-Admission Observation Hours form (www.hawkeyecollege.edu/webres/File/programs/PTA-observation-hours.pdf) for more details.

## Program Admittance

The Physical Therapist Assistant program registers 20 students each spring.

Applicants who successfully meet all admission criteria will be given an Eligible-Start Date to be Determined (ETBD) application status.

The Eligible-Start Date to be Determined status date is according to the student's prerequisite completion date. If students share the same prerequisite completion date, the registration date for the final prerequisite course will be used.

The Admissions Office admits Eligible-Start Date to be Determined candidates ongoing for the next available processing term. Once seat capacity has been reached remaining Eligible-Start Date to be Determined candidates will continue to be considered and contacted accordingly, should a seat become available.

**Background Screening**

Changes are taking place within healthcare facilities nationally. These changes directly affect all health programs at Hawkeye Community College. The Joint Commission of Accreditation of Healthcare Organization (JCAHO), which accredits healthcare facilities across the country, enforced background screening September 2004 and has set requirements mandating that students in a healthcare field must now complete the same background check as hospital employees. As a Health student of Hawkeye Community College, you will be required to complete a criminal background check which includes fingerprinting that searches the following databases of sex offender, child abuse and dependent adult registry, and Medicare/Medicaid Fraud. The outcome could possibly affect your opportunities to participate in the clinical setting

# Physical Therapist Assistant AAS Degree Courses

| | |
|---|---|
| **Award** | Associate of Applied Science (AAS) |
| **Credits** | 53 |
| **Enrollment** | Full-time |
| **Program Start** | Spring |
| **Time to Complete** | 1½ years |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Spring 2024**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ► | Course has a prerequisite and/or corequisite. |
| **4WK4** | Course meets the last 4 weeks of the term. |
| **12WK1** | Course meets the first 12 weeks of the term. |

### Pre-Program Coursework

A cumulative GPA of 3.0 or higher must be achieved for Term 0 coursework.

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

See Admissions Requirements for more information.

| Term 0 — Prerequisites * | | | |
|---|---|---|---|
| BIO-168 | Human Anatomy and Physiology I *<br>*Must be completed with a minimum grade of B-* | 4 | |
| ENG-105 | Composition I ► -OR- | 3 | ◆ |
| SPC-101 | Fundamentals of Oral Communication<br>*Must be completed with a minimum grade of C-* | 3 | ◆ |
| HSC-113 | Medical Terminology<br>*Must be completed with a minimum grade of C-* | 2 | |
| PSY-111 | Introduction to Psychology -OR- | 3 | ◆ |
| PSY-121 | Developmental Psychology<br>*Must be completed with a minimum grade of C-* | 3 | ◆ |
| | | **Total Credits 12** | |

## Technical Program Coursework

Physical Therapist Assistant program technical coursework, Term 1, begins each Spring.

Terms 1–5 require students to be on campus or in an assigned clinical site on a full-time basis.

The program has a dress code for both on-campus coursework and clinical education.

Prior to entering an assigned clinical site, the student must:

- Have a physical examination with updated immunizations recorded on the Hawkeye Community College form. The form and instructions will be provided to all eligible students during the in-program orientation.
- Pass a criminal background, sex offender, and adult/dependent abuse background checks. Instructions will be provided during program orientation. Failing a background check will result in dismissal from the program.
- Complete Mandatory Reporting, Workplace Safety training, and HIPAA training. This training is part of the HSC-108 Introduction to Healthcare Professions course.

  Basic Life Support CPR level is also required and can be obtained through the Hawkeye Community College Business and Community Services department.

  All of these opportunities can be coordinated through communication with the Physical Therapist Assistant program director.

Students must achieve a minimum grade of C or higher in all program coursework.

You may only fail one program course; failing more than one course will be grounds for dismissal from the program.

Clinical experiences are completed off-campus. Sites may be local, in-state, or out-of-state. You are responsible for transportation to and from clinicals, as well as any associated housing costs. You will not be allowed to select specific clinical sites, but may make requests for special needs or geographical locations.

| Term 1 — Spring | | | |
|---|---|---|---|
| BIO-173 | Human Anatomy and Physiology II ►<br>*Must be completed with a minimum grade of B-* | | 4 |
| PTA-101 | Introduction to PTA ► | | 2 |
| PTA-120 | Kinesiology ► | | 3 |
| PTA-150 | Pathophysiology ► | | 3 |
| | | | **Total Credits 12** |

| Term 2 — Summer * | | | |
|---|---|---|---|
| PTA-111 | PTA Fundamentals ► | | 4 |
| PTA-202 | Cardiopulmonary and Integumentary Rehab ► | | 2 |
| PTA-310 | PTA Clinical I ► | | 1 |
| | | | **Total Credits 7** |

* Term 2 — Summer requires students to be on campus two mornings per week.

| Term 3 — Fall | | | |
|---|---|---|---|
| PTA-350 | PTA Clinical II ► | 4WK4 | 2 |
| PTA-194 | Therapeutic Agents I ► | 12WK1 | 3 |
| PTA-211 | Musculoskeletal I ► | 12WK1 | 3 |
| PTA-233 | Therapeutic Exercise ► | 12WK1 | 4 |
| PTA-242 | Adult Neurology ► | 12WK1 | 2 |
| | | | **Total Credits 14** |

| Term 4 — Spring | | | |
|---|---|---|---|
| PTA-400 | PTA Clinical III ► | 4WK4 | 2 |
| PTA-113 | Fundamentals for PTA II ► | 12WK1 | 3 |
| PTA-195 | Therapeutic Agents II ► | 12WK1 | 3 |
| PTA-212 | Musculoskeletal II ► | 12WK1 | 3 |
| PTA-243 | Pediatric Neurology ► | 12WK1 | 2 |
| | | | **Total Credits 13** |

| Term 5 — Summer | |
|---|---|
| PTA-284 PTA Professional Issues ► | 2 |
| PTA-450 PTA Clinical IV ► | 5 |
| | **Total Credits 7** |

# Respiratory Care

The Respiratory Care program prepares you to recognize and treat respiratory disorders in patients of all ages. You will be trained to work with newborn babies having a rough start at life, children with asthma and trauma, and adults with heart and lung complications. You will gain the knowledge and skills to perform:

- Patient assessments
- Breathing treatments
- Lung clearance techniques
- Airway care
- Breathing tube insertion
- Blood draws
- Ventilator management
- Medical record documentation
- Sleep studies
- Electrocardiograms
- Pulmonary function tests

## Hands-On Learning Opportunities

- Van Gerpen Patient Simulator Laboratory: Train in the state-of-the-art simulation lab using realistic full-body manikins and simulators to replicate a range of hospital settings and patient scenarios in a controlled environment.

- Clinical: Gain 800 hours of real-world work experience ensuring you have the skills you need to succeed in your future career.

## Certification

Graduates are eligible to take the national examination for licensure, which is required to practice in any state. A social security number is required in order to take exams and apply for licensure.

You will earn certifications in Basic Life Support (BLS), Advanced Cardiac Life Support (ACLS), Pediatric Advanced Life Support (PALS), and Neonatal Resuscitation Program (NRP).

To identify the states in which Hawkeye's Respiratory Care program requirements fulfill the state guidelines for professional licensure and certification, visit the Respiratory Care web page at www.hawkeyecollege.edu/programs/respiratory-care and click on the State Licensure Google Sheet link.

See the American Association for Respiratory Care Respiratory Therapist State Licensure Contacts (www.aarc.org/advocacy/state-society-resources/state-licensure-contacts) for a list of state agencies and contact information.

## Accreditation

The Respiratory Care program, 200457, Associate of Applied Science, is accredited by the Commission on Accreditation for Respiratory Care (CoARC) (coarc.com).

The Commission on Accreditation for Respiratory Care (CoARC) accredits respiratory therapy education programs in the United States. To achieve this end, it utilizes an 'outcomes based' process. Programmatic outcomes are performance indicators that reflect the extent to which the educational goals of the program are achieved and by which program effectiveness is documented.

See Programmatic Outcomes Data at coarc.com/students/programmatic-outcomes-data.

## Academic Articulation Agreement with North Iowa Area Community College

Students may take Term 0 and Term 1 of Hawkeye's Respiratory Care program courses at North Iowa Area Community College (NIACC) in Mason City and transfer to Hawkeye for the remaining core courses.

Students will perform the majority of clinicals in the Mason City area, driving to Waterloo for class no more than two days per week.

## 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
- Pediatric and neonatal units

### Example Careers and Average Wages

| | Entry | Average | Experienced |
|---|---|---|---|
| **Respiratory Therapists** | $46,600 | $57,500 | $63,000 |

*Source: 2022 Iowa Wage Report, Iowa Workforce Development*

### Employers

The following is a partial list of employers who have hired graduates from this program:

| Business | Location |
|---|---|
| Grandview Healthcare Center | Oelwein, IA |
| Harmony House Health Care Center | Waterloo, IA |
| Mayo Clinic | Rochester and Mankato, MN |
| Mercy Medical Centers | Locations throughout Iowa |
| MercyOne | Locations throughout Iowa |
| Sleep Services | Waterloo, IA |
| UnityPoint Health | Locations throughout Iowa |
| University of Iowa Hospitals and Clinics | Iowa City, IA |

# Program Admission

In order to be considered for the Respiratory Care program, students must provide the Admissions office with the appropriate documentation showing completion of all requirements. Appropriate documentation consists of:

- Updated assessment scores and/or
- A transcript or degree audit showing successful completion of course requirements (i.e. developmental coursework).

It is the student's responsibility to:

- Monitor their progress towards meeting admissions requirements,
- Notify the Admissions office when requirements have been met, and
- Provide the Admissions office evidence of meeting the requirements.

## Apply at Hawkeye

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions.
3. Demonstrate College Readiness

## College Readiness Admission Requirement

Students must meet minimum score requirements and/or successfully complete the required college success courses in English, reading, and math with a C- grade or higher at Hawkeye Community College or comparable courses at another accredited college. For appropriate college success course placement, work with your program advisor. Success courses do not apply toward graduation or the AAS degree.

| | ALEKS | ACCUPLACER | COMPASS | ACT | ACCUPLACER Next Generation | GPA | Success Course |
|---|---|---|---|---|---|---|---|
| **Math** | 30 | 85 Elementary Algebra | 42 Algebra | 19 | 259 Quantitative Reasoning, Algebra, and Statistics | 2.80 | MAT-063: Elementary Algebra |
| **Reading** | --- | 76 | 82 | 19 | 251 | 2.80 | RDG-040 College Prep Reading III |
| **Writing** | --- | 82 Sentence Skills | 65 | 19 | 253 | 2.80 | ENG-061: College Prep Writing II |

## Prerequisite Coursework

Students must complete all prerequisite coursework to fulfill program admission requirements. See Respiratory Care Courses for prerequisite coursework and grade and cumulative GPA requirements.

## Program Admittance

The Respiratory Care program begins each spring and admits 20 students.

Applicants who meet all admission requirements will be admitted based on eligibility date (driven by when prerequisites are successfully completed).

If the number of eligible students exceeds the number of available seats, students will be admitted in the following order:

1. Date all prerequisite coursework was completed.

2. Eligibility date — determined by either:
    a. The date the student registered for their final prerequisite course at Hawkeye, or
    b. The date the Admissions office received transcripts showing completion of prerequisite courses at another accredited institution.
3. Grade Point Average — Determined by grades in prerequisite courses.

Admitted students must have a physical exam with immunization record on Hawkeye Community College form. Criminal background, sex offender, and adult/dependent abuse background checks are required as well. Students will also be required to complete CPR, First Aid, Mandatory Reporting, HIPPA, and OSHA Training prior to clinical coursework.

# Respiratory Care AAS Degree Courses

| | |
|---|---|
| **Award** | Associate of Applied Science (AAS) |
| **Credits** | 59 |
| **Program Start** | Spring |
| **Time to Complete** | 1½ years |

As a student in a health program at Hawkeye Community College, and to participate in clinicals, you will be required to complete the following screenings: 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 are not eligible for the Iowa Vocational Technical Tuition Grant while taking prerequisite courses.

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Spring 2024**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

- ◆ General education course.
- ► Course has a prerequisite and/or corequisite.

| **Term 0 — Pre-Program Prerequisites *** | | |
|---|---|---|
| BIO-168 | Human Anatomy and Physiology I | 4 |
| BIO-173 | Human Anatomy and Physiology II ► | 4 |
| ENG-105 | Composition I ► | 3 |
| PSY-111 | Introduction to Psychology | 3 |
| SPC-101 | Fundamentals of Oral Communication | 3 |
| | **Total Credits 17** | |

* All prerequisite courses must be completed with a grade of "C-" or higher.

* A minimum cumulative GPA of 2.50 is required in the prerequisite courses.

* Prerequisite coursework can be completed at Hawkeye Community College or at any accredited transfer institution.

| Term 1 — Spring ** | | | |
|---|---|---|---|
| BIO-186 | Microbiology | 4 | |
| CHM-122 | Introduction to General Chemistry ► | 4 | |
| HSC-113 | Medical Terminology | 2 | |
| MAT-110 | Math for Liberal Arts ► -OR- | 3 | ◆ |
| MAT-156 | Statistics ► | 3 | ◆ |
| | | **Total Credits 13** | |

** A minimum cumulative GPA of 2.50 is required in Term 1 courses.

** Term 1 coursework can be completed at Hawkeye Community College or at any accredited transfer institution.

| Term 2 — Summer | | |
|---|---|---|
| RCP-100 | Introduction to Respiratory Care | 3 |
| RCP-260 | Airway Maintenance Procedures ► | 4 |
| | | **Total Credits 7** |

| Term 3 — Fall | | |
|---|---|---|
| RCP-315 | Cardiopulmonary Therapeutics ► | 4 |
| RCP-350 | Pulmonary Pathology ► | 3 |
| RCP-561 | Introduction to Ventilator Support ► | 3 |
| RCP-600 | Neonatal/Pediatric Respiratory Therapy ► | 3 |
| RCP-680 | Clinical Respiratory Care ► | 4 |
| | | **Total Credits 17** |

| Term 4 — Spring | | |
|---|---|---|
| RCP-410 | Cardio/Pulmonary Diagnostics ► | 3 |
| RCP-565 | Intensive Respiratory Care ► | 3 |
| RCP-690 | Clinical Intensive Care ► | 8 |
| RCP-875 | Respiratory Care Applications ► | 2 |
| | | **Total Credits 16** |

| Term 5 — Summer | | |
|---|---|---|
| RCP-900 | Clinical Preceptor ► | 4 |
| RCP-910 | Respiratory Care RRT Review | 2 |
| | | **Total Credits 6** |

## Career Area

# INFORMATION TECHNOLOGY

---

Cybersecurity

Information Systems Management

Network Administration and Engineering

Web Programming and Development

# Cybersecurity

The Cybersecurity program prepares students to plan, implement, and defend networks of all sizes. Cybersecurity professionals specialize in protecting networks for threats that can cause loss of money or time due to systems being unavailable. Hawkeye's dedicated data center for students provides all of the tools and equipment needed to learn security best practices in a hands-on environment.

The Cybersecurity program prepares you to design setup, and secure devices and networks. You will gain knowledge and skills in:

- Computer hardware
- Desktop and server operating systems
- Server configuration and administration
- Network security
- Secure VPN solutions
- Wireless network security and administration
- Server, host device, and network device hardening
- Programming and scripting
- Network attacks and countermeasures
- Project management

## Hands-on Learning Experiences

**Data Center**: Learn to build and maintain industry-standard networks, including how to secure the network, protect against hacking attacks, and how to recover from an attack. Gain experience with a variety of operating systems and implement strategies to maintain network uptime and data confidentiality and integrity.

**Internship**: Gain 192 hours of real-world work experience ensuring you have the skills you need to succeed in your future career.

## Certifications

In the information technology industry certifications are a must. Hawkeye is recognized as a Cisco Regional Academy and a VMware IT Academy. You may receive the CompTIA A+ Net+ and Security+, Cisco Certified Network Associate (CCNA), Microsoft Technology Associate (MTA), and VMware certifications.

## Transfer Information

The University of Northern Iowa's Department of Applied Engineering and Technical Management has a documented pathway between Hawkeye's Cybersecurity AAS degree program and UNI's Technology Management Bachelor of Arts degree. Check out UNI's transfer guide at chas.uni.edu/aetm/prospective-students/transfer-students/transfer-guides-hawkeye-community-college to learn more.

Hawkeye's transfer agreement with Upper Iowa University allows you to transfer your Cybersecurity coursework to Upper Iowa University's Bachelor of Science in Information Technology program.

If you plan to transfer, work closely with a program advisor to ensure courses transfer and you meet program requirements.

# Careers

Our graduates can be employed in many careers, including:

- Information Security Analyst
- Computer Network Support Specialist
- Network and Computer Systems Administrator
- Computer and Information Systems Manager

## Example Careers and Average Wages

| Occupation | Growth * | Entry | Average | Experienced |
|---|---|---|---|---|
| **Computer and Information Systems Managers** | 12% | $90,200 | $130,800 | $151,100 |
| **Computer Network Support Specialists** | 12% | $43,600 | $62,000 | $71,100 |
| **Computer User Support Specialists** | 14.4% | $37,400 | $55,200 | $64,100 |
| **Information Security Analysts** | 34% | $65,300 | $125,700 | $155,800 |
| **Network and Computer Systems Administrators** | 8% | $58,800 | $84,100 | $96,700 |

*Source: 2022 Iowa Wage Report, Iowa Workforce Development*

** Source: 2019 Economic Development and Employer Planning System*

## Employers

Many business sectors have a growing need for Security professionals including:

- IT Managed Services Providers
- Banking, Credit and Finance
- Healthcare and Medical
- Energy and Utilities
- Government
- Manufacturing
- Education
- Retail and Food Service

# Program Admission

## Apply at Hawkeye

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions.
3. Demonstrate College Readiness.

## College Readiness Admission Requirement

In order to be eligible for the Cybersecurity program, you must have a high school GPA of 2.50, or meet minimum score requirements listed below, and/or successfully complete the required college success courses in English, reading, and math with a C- grade or higher at Hawkeye Community College or comparable courses at another accredited college. For appropriate college success course placement, work with your program advisor. Success course credits do not apply towards graduation or the AAS degree.

| | ALEKS | ACCUPLACER | COMPASS | ACT | ACCUPLACER Next Generation | GPA |
|---|---|---|---|---|---|---|
| **Math** | 14 | 63 Arithmetic | 39 Pre-Algebra | 16 | 255 Arithmetic<br>246 Quantitative Reasoning, Algebra, and Statistics | 2.50 |
| **Reading** | --- | 58 | 69 | 16 | 239 | 2.50 |
| **Writing** | --- | 64 Sentence Skills | 41 | 16 | 240 | 2.50 |

## Program Acceptance

Applicants successfully demonstrating college readiness criteria are eligible for acceptance.

Applicants falling short of successful demonstration of college readiness criteria will be accepted to a Pre-Program. As a pre-program student, you will begin with general education and prerequisite classes. An advisor will help you create an academic plan to meet your program admission requirements. Once you have completed your pre-program coursework contact Admissions.

# Cybersecurity AAS Degree Courses

| | |
|---|---|
| **Award** | Associate of Applied Science (AAS) |
| **Credits** | 67 |
| **Program Start** | Fall |
| **Time to Complete** | 2 years |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ► | Course has a prerequisite and/or corequisite. |
| **O** | Course meets 100% online. |
| **E** | Course meets face-to-face after 5:00pm. |

| Term 1 — Fall | | | | |
|---|---|---|---|---|
| CIS-303 | Introduction to Database | | 3 | |
| CSC-116 | Information Computing ► -OR- | O | 3 | ◆ |
| CSC-110 | Introduction to Computers ► | O | 3 | ◆ |
| MAT-110 | Math for Liberal Arts ► -OR- | | 3 | ◆ |
| MAT-102 | Intermediate Algebra -OR- | | 4 | ◆ |
| MAT-121 | College Algebra ► -OR- | | 4 | ◆ |
| MAT-128 | Precalculus ► -OR- | | 4 | ◆ |
| MAT-134 | Trigonometry and Analytic Geometry ► -OR- | | 3 | ◆ |
| MAT-156 | Statistics ► -OR- | O E | 3 | ◆ |
| MAT-210 | Calculus I ► | O | 4 | ◆ |
| NET-109 | A+ Certification Prep Course | | 4 | |
| NET-115 | College Experience | | 1 | |
| NET-202 | Programming for Network Administrators ► | | 3 | |
| | | **Total Credits** | **17** | |

| Term 2 — Spring | | | | |
|---|---|---|---|---|
| NET-178 | Intro to Cyber Security | | 3 | |
| NET-213 | Cisco Networking ► | | 4 | |
| NET-313 | Windows Server ► | | 3 | |
| NET-412 | Linux System Administration | | 3 | |
| PSY-102 | Human and Work Relations -OR- | O E | 3 | ◆ |
| PSY-111 | Introduction to Psychology -OR- | O E | 3 | ◆ |
| SOC-110 | Introduction to Sociology | O | 3 | ◆ |
| | | **Total Credits** | **16** | |

| Term 3 — Summer | | | |
|---|---|---|---|
| NET-228 | Cisco Networking II ► | | 4 |
| SPC-101 | Fundamentals of Oral Communication | | 3 |
| | | **Total Credits** | **7** |

| Term 4 — Fall | | | | |
|---|---|---|---|---|
| COM-781 | Written Communication in the Workplace ► -OR- | O E | 3 | ◆ |
| ENG-105 | Composition I ► | O E | 3 | ◆ |
| NET-310 | Virtual Machines ► | | 3 | |
| NET-350 | Cisco Security ► | | 4 | |
| NET-612 | Fundamentals of Network Security ► | | 3 | |
| | | **Total Credits** | **13** | |

| Term 5 — Spring | | |
|---|---|---|
| CIS-750 | Project Management ► | 3 |
| NET-619 | Network Attacks: Detection, Analysis & Countermeasures ► | 3 |
| NET-914 | Cybersecurity Experiential Learning ► | 3 |
| NET-932 | Internship ► | 3 |
| | Cybersecurity Elective | 2 |
| | **Total Credits** | **14** |

| Cybersecurity Electives | | |
|---|---|---|
| BUS-180 | Business Ethics | 3 |
| CIS-121 | Introduction to Programming Logic | 3 |
| CIS-604 | Visual Basic | 3 |
| NET-152 | Advanced Network Technology | 3 |
| NET-168 | Administering Windows Server ► | 3 |
| NET-229 | Cisco Networking III ► | 4 |
| NET-346 | Windows Exchange Server ► | 3 |
| NET-475 | Certification Preparation ► | 2 |
| PHI-105 | Introduction to Ethics | 3 |
| WDV-102 | Introduction to Web Development | 3 |
| WDV-105 | Web Layouts | 3 |

# Cybersecurity Certificate Courses

| | |
|---|---|
| **Award** | Certificate |
| **Credits** | 16 |
| **Program Start** | Fall |
| **Time to Complete** | 9 months |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

► Course has a prerequisite and/or corequisite.

| **Term 1 — Fall** | |
|---|---|
| NET-202 Programming for Network Administrators ► | 3 |
| NET-350 Cisco Security ► | 4 |
| NET-612 Fundamentals of Network Security ► | 3 |
| **Total Credits 10** | |

| **Term 2 — Spring** | |
|---|---|
| NET-178 Intro to Cyber Security | 3 |
| NET-619 Network Attacks: Detection, Analysis & Countermeasures ► | 3 |
| **Total Credits 6** | |

# Information Systems Management

Learn to implement and manage the systems that support a business's key objectives, goals, and business practices—combining your computer and business skills.

The Information Systems Management program prepares students to work as Computer User Support Specialists in a tier-2 capacity, which involves directly working with clients to resolve more complex issues that are unable to be resolved by Help-Desk.

Students will learn:

- Basic PC hardware and operating systems
- Microsoft Office and databases
- Server operating systems
- Computer networking

Students will also be introduced to business concepts such as accounting, stats, business management, HR management, project managements, and have an internship to gain valuable real-world experience prior to graduation.

## Certifications

In the information technology industry certifications are a must. Hawkeye is recognized as a Cisco Regional Academy. You may receive the Cisco Certified Entry Networking Technician (CCENT), and CompTIA certifications.

## Why Pursue a Career in Information Technology?

Information Technology (IT) is something that every company needs in order to compete in the world today. Since every company needs IT, you have a huge number of employers and industries to choose from. As someone who can implement and maintain IT infrastructures as well as help other employees with IT-related problems, an IT professional is a vital asset to any company. But IT is only part of the overall picture; business is the other part.

The Information Systems Management program introduces students to general IT concepts as well as business related practices. By having a combination of the two, graduates not only understand IT, but also how IT relates to business.

## Transfer Information

The University of Northern Iowa's Department of Applied Engineering and Technical Management has a documented pathway between Hawkeye's Information Systems Management AAS degree program and UNI's Technology Management Bachelor of Arts degree. Check out UNI's transfer guide at chas.uni.edu/aetm/prospective-students/transfer-students/transfer-guides-hawkeye-community-college to learn more.

Our transfer agreement with Upper Iowa University allows you to transfer your Information Systems Management coursework to Upper Iowa University's Bachelor of Science in Information Technology program.

Hawkeye also has a transfer relationship with the University of Iowa.

If you plan to transfer, work closely with a program advisor to ensure courses transfer and you meet program requirements.

# Careers

Our graduates can be employed in many career areas, including:

- Support specialist
- Account representative
- Help desk technician
- Computer repair technician
- Network manager
- Help desk manager
- Information systems manager

## Example Careers and Average Wages

| | Entry | Average | Experienced |
|---|---|---|---|
| **Computer User Support Specialists** | $37,400 | $55,200 | $64,100 |

*Source: 2022 Iowa Wage Report, Iowa Workforce Development*

## Industry Growth

State, National, and Regional indicators for related careers for this program show large growth in opportunities of 6–32% with steadily increasing median annual wages of $47K statewide to $52K nationally.

Supply indicators show a large shortage of trained workers for IT positions.

*Sources: Economic Development and Employer Planning System (www.edeps.org) and U.S. Bureau of Labor Statistics (www.bls.gov).*

## Employers

The following is a partial list of employers who have hired graduates from this program:

| Business | Location |
|---|---|
| CBE Group | Cedar Falls, IA |
| Cedar Valley Medical Specialists, P.C. | Waterloo, IA |
| The VGM Group | Waterloo, IA |
| Veridian Credit Union | Waterloo, IA |
| Waverly Utilities | Waverly, IA |

# Program Admission

## Apply at Hawkeye

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions.
3. Demonstrate College Readiness.

## College Readiness Admission Requirement

In order to be eligible for the Information Systems Management program, all students must meet minimum score requirements and/or successfully complete the required college success courses in English, reading, and math with a C- grade or higher at Hawkeye Community College or comparable courses at another accredited college. For appropriate college success course placement, work with your program advisor.

| | ALEKS | ACCUPLACER | COMPASS | ACT | ACCUPLACER Next Generation | GPA |
|---|---|---|---|---|---|---|
| **Math** | 14 | 63 Arithmetic | 39 Pre-Algebra | 16 | 255 Arithmetic<br>246 Quantitative Reasoning, Algebra, and Statistics | 2.50 |
| **Reading** | | 58 | 69 | 16 | 239 | 2.50 |
| **Writing** | | 64 Sentence Skills | 41 | 16 | 240 | 2.50 |

## Program Acceptance

Applicants successfully demonstrating college readiness criteria are eligible for acceptance.

Applicants falling short of successful demonstration of college readiness criteria will be accepted to a Pre-Program. As a pre-program student, you will begin with general education and prerequisite classes. An advisor will help you create an academic plan to meet your program admission requirements. Once you have completed your pre-program coursework contact Admissions.

# Information Systems Management AAS Degree Courses

| | |
|---|---|
| **Award** | Associate of Applied Science (AAS) |
| **Credits** | 63 |
| **Program Start** | Fall |
| **Time to Complete** | 2 years |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ► | Course has a prerequisite and/or corequisite. |
| **O** | Course meets 100% online. |
| **E** | Course meets face-to-face after 5:00pm. |

| **Term 1** | | | | |
|---|---|---|---|---|
| CIS-303 | Introduction to Database | | 3 | |
| CSC-116 | Information Computing ► -OR- | O | 3 | ◆ |
| CSC-110 | Introduction to Computers ► | O | 3 | ◆ |
| MAT-110 | Math for Liberal Arts ► -OR- | | 3 | ◆ |
| MAT-102 | Intermediate Algebra -OR- | | 4 | ◆ |
| MAT-121 | College Algebra ► -OR- | | 4 | ◆ |
| MAT-128 | Precalculus ► -OR- | | 4 | ◆ |
| MAT-134 | Trigonometry and Analytic Geometry ► -OR- | | 3 | ◆ |
| MAT-210 | Calculus I ► | O | 4 | ◆ |
| NET-109 | A+ Certification Prep Course | | 4 | |
| NET-115 | College Experience | | 1 | |
| NET-213 | Cisco Networking ► | | 4 | |
| | | | **Total Credits** | **18** |

| Term 2 | | | | |
|---|---|---|---|---|
| BUS-102 | Introduction to Business | | 3 | |
| COM-781 | Written Communication in the Workplace ► -OR- | O E | 3 | ◆ |
| ENG-105 | Composition I ► | O E | 3 | ◆ |
| NET-228 | Cisco Networking II ► | | 4 | |
| NET-313 | Windows Server ► | | 3 | |
| PSY-102 | Human and Work Relations -OR- | O E | 3 | ◆ |
| PSY-111 | Introduction to Psychology -OR- | O E | 3 | ◆ |
| SOC-110 | Introduction to Sociology | O | 3 | ◆ |
| | | **Total Credits** | **16** | |

| Term 3 | | |
|---|---|---|
| ACC-152 | Financial Accounting ► | 4 |
| MAT-156 | Statistics ► | 3 |
| MGT-101 | Principles of Management | 3 |
| SPC-101 | Fundamentals of Oral Communication | 3 |
| | **Total Credits** | **13** |

| Term 4 | | |
|---|---|---|
| ACC-156 | Managerial Accounting ► | 4 |
| CIS-750 | Project Management ► | 3 |
| MGT-170 | Human Resource Management | 3 |
| NET-932 | Internship ► | 3 |
| | Information Technology Elective | 3 |
| | **Total Credits** | **16** |

| Information Technology Electives | | |
|---|---|---|
| BUS-183 | Business Law | 3 |
| NET-152 | Advanced Network Technology | 3 |
| NET-178 | Intro to Cyber Security | 3 |
| NET-202 | Programming for Network Administrators ► | 3 |
| NET-229 | Cisco Networking III ► | 4 |
| NET-310 | Virtual Machines ► | 3 |
| NET-346 | Windows Exchange Server ► | 3 |
| NET-350 | Cisco Security ► | 4 |
| NET-412 | Linux System Administration | 3 |
| NET-474 | Certification Preparation ► | 1 |
| NET-475 | Certification Preparation ► | 2 |
| NET-612 | Fundamentals of Network Security ► | 3 |
| NET-949 | Special Topics | 1 |

# Network Administration and Engineering

Learn to design, layout, setup, and maintain every aspect of a computer network. You'll train in Hawkeye's state-of-the-art data center, where you learn to build a network, secure the network, and restore the network after an outage.

The Network Administration and Engineering program prepares students to work as Systems Administrators in a tier-3 capacity, which involves directly working with clients to resolve more complex issues that are unable to be resolved by tier-1 (Help desk) and tier-2 (PC / User support) personnel. In addition, program graduates are also prepared to manage IT infrastructures for area business and do so on-site or remotely.

Students will learn:

- Basic PC hardware and operating systems
- Microsoft Office
- Databases
- Server operating systems
- Computer networking.
- Advanced IT technologies including virtualization, email systems, server management, project management, SQL, IT security, and more!

Students will also complete an internship to gain valuable work experience prior to graduation.

## Hands-on Learning Experiences

- Data Center: Learn to build and maintain industry-standard networks, including how to secure the network, protect against hacking attacks, and how to recover from an attack. Gain experience with the latest Microsoft desktop, server, Exchange, and SQL server platforms.

- Internship: Gain 192 hours of real-world work experience ensuring you have the skills you need to succeed in your future career.

## Certifications

In the information technology industry certifications are a must. Hawkeye is recognized as a Cisco Regional Academy and a VMware IT Academy. You may receive the Cisco Certified Network Associate (CCNA), CompTIA, and VMware certifications.

## Why Pursue a Career in Information Technology?

Information Technology (IT) is something that every company needs in order to compete in the world today. This program has a tremendous reputation with employers around the state for preparing students very well to enter the IT workforce. Placement in the IT field averages 85% within 90 days for new graduates seeking work.

## Transfer Information

This program is geared towards students wishing to complete two years of education and enter the workforce. For students wishing to continue education, this program has articulation agreements with Upper Iowa University as well as a transfer relationship with the University of Iowa

The University of Northern Iowa's Department of Applied Engineering and Technical Management has a documented pathway between Hawkeye's Network Administration and Engineering AAS degree program and UNI's Technology Management Bachelor of Arts degree. Check out UNI's transfer guide at chas.uni.edu/aetm/prospective-students/transfer-students/transfer-guides-hawkeye-community-college to learn more.

Our transfer agreement with Upper Iowa University allows you to transfer your Network Administration and Engineering coursework to Upper Iowa University's Bachelor of Science in Information Technology program.

If you plan to transfer, work closely with a program advisor to ensure courses transfer and you meet program requirements.

## Careers

Our graduates can be employed in many careers, including:

- Network administrator
- Network technician
- LAN/WAN engineer
- LAN/WAN administrator
- Help desk technician

### Example Careers and Average Wages

| | Entry | Average | Experienced |
|---|---|---|---|
| **Computer Network Support Specialists** | $43,600 | $62,000 | $71,100 |
| **Computer User Support Specialists** | $37,400 | $55,200 | $64,100 |

*Source: 2022 Iowa Wage Report, Iowa Workforce Development*

### Industry Growth

State, National, and Regional indicators for related careers for this program show large growth in opportunities of 6–32% with steadily increasing median annual wages of $47K statewide to $52K – $65K nationally.

Supply indicators show a large shortage of trained workers for IT positions.

Sources: Economic Development and Employer Planning System and U.S. Bureau of Labor Statistics

### Employers

The following is a partial list of employers who have hired graduates from this program:

| Business | Location |
|---|---|
| ACES | Cedar Falls, IA |
| BerganKDV | Waterloo, IA |
| CBE Group | Cedar Falls, IA |
| CDW | Minneapolis, MN |

| Business | Location |
|---|---|
| Cedar Falls Utilities | Cedar Falls, IA |
| John Deere | Waterloo, IA |
| EO Johnson Business Technologies | Cedar Falls, IA |
| The VGM Group | Waterloo, IA |

# Program Admission

## Apply at Hawkeye

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions.
3. Demonstrate College Readiness.

## College Readiness Admission Requirement

In order to be eligible for the Network Administration and Engineering, all students must meet minimum score requirements and/or complete required success courses. Success course credits do not apply towards graduation or the AAS degree.

In order to be eligible for the Network Administration and Engineering program, all students must meet minimum score requirements and/or successfully complete the required college success courses in English, reading, and math with a C- grade or higher at Hawkeye Community College or comparable courses at another accredited college. For appropriate college success course placement, work with your program advisor.

| | ALEKS | ACCUPLACER | COMPASS | ACT | ACCUPLACER Next Generation | GPA |
|---|---|---|---|---|---|---|
| **Math** | 14 | 63 Arithmetic | 39 Pre-Algebra | 16 | 255 Arithmetic<br>246 Quantitative Reasoning, Algebra, and Statistics | 2.50 |
| **Reading** | --- | 58 | 69 | 16 | 239 | 2.50 |
| **Writing** | --- | 64 Sentence Skills | 41 | 16 | 240 | 2.50 |

## Program Acceptance

Applicants successfully demonstrating college readiness criteria are eligible for acceptance.

Applicants falling short of successful demonstration of college readiness criteria will be accepted to a Pre-Program. As a pre-program student, you will begin with general education and prerequisite classes. An advisor will help you create an academic plan to meet your program admission requirements. Once you have completed your pre-program coursework contact Admissions.

# Network Administration and Engineering AAS Degree Courses

| | |
|---|---|
| **Award** | Associate of Applied Science (AAS) |
| **Credits** | 68 |
| **Program Start** | Fall |
| **Time to Complete** | 2 years |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ► | Course has a prerequisite and/or corequisite. |
| **O** | Course meets 100% online. |
| **E** | Course meets face-to-face after 5:00pm. |

| Term 1 — Fall | | | | |
|---|---|---|---|---|
| CIS-303 | Introduction to Database | | 3 | |
| CSC-116 | Information Computing ► -OR- | O | 3 | ◆ |
| CSC-110 | Introduction to Computers ► | O | 3 | ◆ |
| MAT-110 | Math for Liberal Arts ► -OR- | | 3 | ◆ |
| MAT-102 | Intermediate Algebra -OR- | | 4 | ◆ |
| MAT-121 | College Algebra ► -OR- | | 4 | ◆ |
| MAT-128 | Precalculus ► -OR- | | 4 | ◆ |
| MAT-134 | Trigonometry and Analytic Geometry ► -OR- | | 3 | ◆ |
| MAT-156 | Statistics ► -OR- | O E | 3 | ◆ |
| MAT-210 | Calculus I ► | O | 4 | ◆ |
| NET-109 | A+ Certification Prep Course | | 4 | |
| NET-115 | College Experience | | 1 | |
| NET-213 | Cisco Networking ► | | 4 | |
| | | **Total Credits** | **18** | |

| Term 2 — Spring | | | | |
|---|---|---|---|---|
| COM-781 | Written Communication in the Workplace ► -OR- | O E | 3 | ◆ |
| ENG-105 | Composition I ► | O E | 3 | ◆ |
| NET-228 | Cisco Networking II ► | | 4 | |
| NET-313 | Windows Server ► | | 3 | |
| NET-412 | Linux System Administration | | 3 | |
| PSY-102 | Human and Work Relations -OR- | O E | 3 | ◆ |
| PSY-111 | Introduction to Psychology -OR- | O E | 3 | ◆ |
| SOC-110 | Introduction to Sociology | O | 3 | ◆ |
| | | **Total Credits** | **16** | |

| Term 3 — Fall | | | |
|---|---|---|---|
| NET-168 | Administering Windows Server ► | | 3 |
| NET-229 | Cisco Networking III ► | | 4 |
| NET-310 | Virtual Machines ► | | 3 |
| NET-346 | Windows Exchange Server ► | | 3 |
| NET-612 | Fundamentals of Network Security ► | | 3 |
| | | **Total Credits** | **16** |

| Term 4 — Spring | | |
|---|---|---|
| CIS-750 | Project Management ► | 3 |
| NET-710 | SQL Database ► | 2 |
| NET-916 | Experiential Learning ► | 5 |
| NET-932 | Internship ► | 3 |
| SPC-101 | Fundamentals of Oral Communication | 3 |
| | Elective(s)<br>*Minimum of 2 credits from the electives list* | 2 |
| | | **Total Credits 18** |

| Electives | | |
|---|---|---|
| CIS-604 | Visual Basic | 3 |
| NET-152 | Advanced Network Technology | 3 |
| NET-178 | Intro to Cyber Security | 3 |
| NET-202 | Programming for Network Administrators ► | 3 |
| NET-350 | Cisco Security ► | 4 |
| NET-474 | Certification Preparation ► | 1 |
| NET-475 | Certification Preparation ► | 2 |
| NET-949 | Special Topics | 1 |

# Computer Networking Technician Diploma Courses

| | |
|---|---|
| **Award** | Diploma |
| **Credits** | 34 |
| **Program Start** | Fall |
| **Time to Complete** | 9 months |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ► | Course has a prerequisite and/or corequisite. |
| **O** | Course meets 100% online. |
| **E** | Course meets face-to-face after 5:00pm. |

| Term 1 — Fall | | | | |
|---|---|---|---|---|
| CIS-303 | Introduction to Database | | 3 | |
| CSC-116 | Information Computing ► -OR- | O | 3 | ◆ |
| CSC-110 | Introduction to Computers ► | O | 3 | ◆ |
| MAT-110 | Math for Liberal Arts ► -OR- | | 3 | ◆ |
| MAT-102 | Intermediate Algebra -OR- | | 4 | ◆ |
| MAT-121 | College Algebra ► -OR- | | 4 | ◆ |
| MAT-128 | Precalculus ► -OR- | | 4 | ◆ |
| MAT-134 | Trigonometry and Analytic Geometry ► -OR- | | 3 | ◆ |
| MAT-156 | Statistics ► -OR- | O E | 3 | ◆ |
| MAT-210 | Calculus I ► | O | 4 | ◆ |
| NET-109 | A+ Certification Prep Course | | 4 | |
| NET-115 | College Experience | | 1 | |
| NET-213 | Cisco Networking ► | | 4 | |
| | | **Total Credits** | **18** | |

| Term 2 — Spring | | | | |
|---|---|---|---|---|
| COM-781 | Written Communication in the Workplace ► -OR- | O E | 3 | ◆ |
| ENG-105 | Composition I ► | O E | 3 | ◆ |
| NET-228 | Cisco Networking II ► | | 4 | |
| NET-313 | Windows Server ► | | 3 | |
| NET-412 | Linux System Administration | | 3 | |
| PSY-102 | Human and Work Relations -OR- | O E | 3 | ◆ |
| PSY-111 | Introduction to Psychology -OR- | O E | 3 | ◆ |
| SOC-110 | Introduction to Sociology | O | 3 | ◆ |
| | | **Total Credits** | **16** | |

# Web Programming and Development

Gain the knowledge and skills to plan, program, and test dynamic web applications. You'll learn programming languages that are standard in the industry. From the start, you'll develop your skills building basic websites and progressing to dynamic database-driven web applications.

The Web Programming and Development program prepares you with the knowledge and skills to plan, create, program, test, troubleshoot, and maintain dynamic web applications. You will learn multiple programming languages, including HTML5, CSS3, PHP, ASP.NET C#, SQL, and JavaScript. You will also gain skills in:

- Programming logic
- Database design and management
- Website standards
- Responsive, mobile, and desktop website layouts
- Web application building
- Programming algorithms

Programming is a high-demand area. This career is a highly creative career path for problem solvers.

## Hands-On Learning Opportunities

- Computer Lab: Practice your coding and programming skills with the latest in industry software.
- Internship: Gain 192 hours of real-world work experience ensuring you have the skills you need to succeed in your future career.
- Projects: Many courses have projects to showcase learning.

## Evening Program

This program is offered in the evening with classes starting at 5:00pm, allowing you to work and go to school at the same time. You will also take hybrid and online classes to complete your degree.

## Transfer Information

The University of Northern Iowa's Department of Applied Engineering and Technical Management has a documented pathway between Hawkeye's Web Programming and Development AAS degree program and UNI's Technology Management Bachelor of Arts degree. Check out UNI's transfer guide at chas.uni.edu/aetm/prospective-students/transfer-students/transfer-guides-hawkeye-community-college to learn more.

If you plan to transfer, work closely with a program advisor to ensure courses transfer and you meet program requirements.

# Careers

Graduates find employment in all types of businesses including:

- Advertising
- Manufacturing
- Service
- Education
- Distributors
- Retail
- Tourism
- Non-profit
- Government agencies

## Example Careers and Average Wages

| | Entry | Average | Experienced |
|---|---|---|---|
| **Web Developers** | $31,800 | $66,000 | $83,100 |

*Source: 2022 Iowa Wage Report, Iowa Workforce Development*

## Employers

The following is a partial list of employers who have hired graduates from this program:

| Business | Location |
|---|---|
| Far Reach Technologies | Cedar Falls, IA |
| Hawkeye Community College | Waterloo, IA |
| Mudd Advertising | Waterloo, IA |
| VGM Forbin | Waterloo, IA |
| Scientific Games Interactive/Williams Interactive SoCaMo | Cedar Falls, IA |

# Program Admission

## Apply at Hawkeye

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions.
3. Demonstrate College Readiness.

## College Readiness Admission Requirement

In order to be eligible for the Web Programming and Development program, all students must meet minimum score requirements and/or successfully complete the required college success courses in English, reading, and math with a C- grade or higher at Hawkeye Community College or comparable courses at another accredited college. For appropriate college success course placement, work with your program advisor.

| | ALEKS | ACCUPLACER | COMPASS | ACT | ACCUPLACER Next Generation | GPA |
|---|---|---|---|---|---|---|
| **Math** | 14 | 63 Arithmetic | 39 Pre-Algebra | 16 | 255 Arithmetic<br>246 Quantitative Reasoning, Algebra, and Statistics | 2.50 |
| **Reading** | --- | 76 | 82 | 19 | 251 | 2.80 |
| **Writing** | --- | 64 Sentence Skills | 41 | 16 | 240 | 2.50 |

## Program Acceptance

Applicants successfully demonstrating college readiness criteria are eligible for acceptance.

Applicants falling short of successful demonstration of college readiness criteria will be accepted to a Pre-Program. As a pre-program student, you will begin with general education and prerequisite classes. An advisor will help you create an academic plan to meet your program admission requirements. Once you have completed your pre-program coursework contact Admissions.

# Web Programming and Development AAS Degree Courses

| | |
|---|---|
| **Award** | Associate of Applied Science (AAS) |
| **Credits** | 61 |
| **Program Start** | Fall |
| **Time to Complete** | 2 years |
| **Course Format** | Hybrid, Online |
| **Class Meets** | Evening starting at 5:00pm |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

- ◆ General education course.
- ▣ Non-transfer general education course.
- ► Course has a prerequisite and/or corequisite.

| **Term 1** | | | |
|---|---|---|---|
| CIS-121 | Introduction to Programming Logic | 3 | |
| CIS-355 | Database Design and Management | 4 | |
| COM-781 | Written Communication in the Workplace ► -OR- | 3 | ◆ |
| ENG-105 | Composition I ► | 3 | ◆ |
| MAT-110 | Math for Liberal Arts ► -OR- | 3 | |
| | Math Elective | 3 | |
| WDV-102 | Introduction to Web Development | 3 | |
| | | **Total Credits 16** | |

| Term 2 | | | |
|---|---|---|---|
| CIS-215 | Server Side Web Programming ► | 3 | |
| CIS-231 | PHP Programming ► | 3 | |
| CIS-249 | Web Languages ► -OR- | 3 | |
| MGT-110 | Small Business Management -OR- | 3 | |
| WDV-105 | Web Layouts -OR- | 3 | |
| WDV-928 | Independent Study | 1 | |
| CIS-504 | Structured Systems Analysis | 3 | |
| SPC-101 | Fundamentals of Oral Communication | 3 | |
| | | **Total Credits 15** | |

| Term 3 | | | |
|---|---|---|---|
| CIS-206 | Web Scripting ► | 3 | |
| CIS-217 | Data Driven Web Page ► | 3 | |
| CIS-225 | Advanced Server Side Web Programming ► | 3 | |
| PSY-102 | Human and Work Relations -OR- | 3 | ◆ |
| PSY-111 | Introduction to Psychology -OR- | 3 | ◆ |
| SOC-110 | Introduction to Sociology | 3 | ◆ |
| | Elective | 3 | |
| | | **Total Credits 15** | |

| Term 4 | | | |
|---|---|---|---|
| CIS-184 | Programming Algorithms ► | 3 | |
| WDV-600 | Project Development ► | 3 | |
| WDV-800 | Portfolio ► | 3 | |
| WDV-930 | Internship ► | 3 | |
| | Elective | 3 | |
| | | **Total Credits 15** | |

| Electives | | |
|---|---|---|
| CIS-234 | Web Site Administration ► | 3 |
| CIS-249 | Web Languages ► | 3 |
| CIS-274 | E-Commerce Design ► | 3 |
| CIS-364 | Game Development I ► | 3 |
| MGT-110 | Small Business Management<br>*Offered spring semester* | 3 |
| NET-109 | A+ Certification Prep Course<br>*Offered fall semester* | 4 |
| WDV-105 | Web Layouts | 3 |
| WDV-300 | Advanced Topics in Web Development ► | 3 |
| WDV-928 | Independent Study | 1 |

| Math Electives | | |
|---|---|---|
| MAT-121 | College Algebra ► | 4 |
| 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 |

## Career Area

# MANUFACTURING AND ENGINEERING

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Civil & Construction Engineering Technology

CNC Machining & Tool-Making Technology

Electronics Engineering Technology

Industrial Automation Technology

Welding, Advanced Manufacturing Welding

# Civil and Construction Engineering Technology

The Civil and Construction Engineering Technology program prepares you for an entry-level career working as a technician under the direction of civil engineers, surveyors, contractors, and architects. If you'd like a job building bridges, highways, or facilities, this degree is for you. You'll learn how to use the latest technology in the areas of planning, designing, construction, and maintenance, while positioning yourself to earn a great salary. You'll learn to:

- Read building and highway blueprints
- Operate survey equipment and process data
- Sample and test materials
- Prepare construction plans
- Prepare quantity estimates
- Inspect civil infrastructure projects
- Use computer-aided drafting and design (CADD)

## Hands-On Learning Opportunities

- Indoor and Outdoor Lab and Field Work Experiences: Use technology, tools, and equipment in real-world projects, including surveying, construction materials testing, engineering problem solving, and CAD.

- Job Opportunities: Many summer and part-time jobs are available while you are completing the program. These are not a requirement to graduate.

## Transfer Information

The University of Northern Iowa's Department of Applied Engineering and Technical Management has a variety of documented pathways between Hawkeye's Civil and Construction Engineering Technology AAS degree program and a bachelor degree at UNI. Check out UNI's transfer guides at chas.uni.edu/aetm/prospective-students/transfer-students/transfer-guides-hawkeye-community-college for the following programs to learn more:

- Construction Management
- Technology Management

If you plan to transfer, work closely with a program advisor to ensure courses transfer and you meet program requirements.

## Careers

Graduates find employment working as civil technicians, CAD drafters, designers, surveyors, construction inspectors, material testing technicians, and estimators for engineering offices, material testing labs, surveying companies, civil construction contractors, city engineer offices, and county and state highway departments.

### Example Careers and Average Wages

| | Entry | Average | Experienced |
|---|---|---|---|
| **Civil Engineering Technologists and Technicians** | $41,600 | $60,600 | $70,000 |

*Source: 2022 Iowa Wage Report, Iowa Workforce Development*

### Employers

The following is a partial list of employers who have hired graduates from this program:

| Business | Location |
|---|---|
| AECOM | Waterloo and Des Moines, IA |
| Black Hawk County Engineer's Office | Waterloo, IA |
| CGA Consultants | Cedar Falls, Marshalltown, and Ackley, IA |
| City of Waterloo Engineering Department | Waterloo, IA |
| Fehr Graham Engineering and Environmental | Manchester and West Union, IA |
| Foth | Cedar Rapids and Des Moines, IA |
| Herold-Reicks Surveying | New Hampton, Waverly, and Clear Lake, IA |
| Iowa Department of Transportation | Ames, IA |
| McAninch Corporation | Des Moines, IA |
| WHKS, Inc. | Dubuque and Ames, IA |
| Peterson Contractors, Inc. | Reinbeck, IA |
| Terracon | Cedar Falls and Cedar Rapids, IA |
| WHKS Engineers and Land Surveyors | Mason City and Dubuque, IA |

## Program Admission

### Apply at Hawkeye

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions.
3. Demonstrate College Readiness.

### College Readiness Admission Requirement

In order to be eligible for the Civil and Construction Engineering Technology program, all students must meet minimum score requirements and/or successfully complete the required college success courses in English, reading, and math with a C- grade or higher at Hawkeye Community College or comparable courses at another accredited college. For appropriate college success course placement, work with your program advisor.

| | ALEKS | ACCUPLACER | COMPASS | ACT | ACCUPLACER Next Generation | GPA |
|---|---|---|---|---|---|---|
| **Math** | 30 | 85 Elementary Algebra | 42 Algebra | 19 | 259 Quantitative Reasoning, Algebra, and Statistics | 2.80 |
| **Reading** | --- | 58 | 69 | 16 | 239 | 2.50 |

| | ALEKS | ACCUPLACER | COMPASS | ACT | ACCUPLACER Next Generation | GPA |
|---|---|---|---|---|---|---|
| **Writing** | ---- | 64 Sentence Skills | 41 | 16 | 240 | 2.50 |

## Program Acceptance

Applicants successfully demonstrating college readiness criteria are eligible for acceptance.

Applicants falling short of successful demonstration of college readiness criteria will be accepted to a Pre-Program. As a pre-program student, you will begin with general education and prerequisite classes. An advisor will help you create an academic plan to meet your program admission requirements. Once you have completed your pre-program coursework contact Admissions.

# Civil and Construction Engineering Technology AAS Degree Courses

| | |
|---|---|
| **Award** | Associate of Applied Science (AAS) |
| **Credits** | 72 |
| **Program Start** | Fall |
| **Time to Complete** | 2 years |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ► | Course has a prerequisite and/or corequisite. |
| **O** | Course meets 100% online. |
| **E** | Course meets face-to-face after 5:00pm. |

| **Term 1** | | |
|---|---|---|
| CAD-118 | Technical Drawing and CAD ► | 3 |
| CET-123 | Constr Drawings and Cont ► | 3 |
| CET-160 | Surveying ► | 3 |
| CSC-110 | Introduction to Computers ► | 3 |
| EGT-416 | Civil Engineering and Architecture | 3 |
| MAT-741 | Technical Mathematics I ► * -OR- | 3 ◆ |
| MAT-121 | College Algebra ► | 4 ◆ |
| | **Total Credits** | **18** |

* Completion of MAT-128 with a minimum grade of C will satisfy the MAT-741 and MAT-748 course requirement.

| Term 2 | | | | |
|---|---|---|---|---|
| CET-142 | PC Concrete, HMA, and Testing | | 3 | |
| CET-183 | Structural Detailing and Civil Drafting ► | | 3 | |
| CET-213 | Route Surveying/Roadway Design ► | | 3 | |
| CET-253 | Fundamentals of Construction Estimating ► | | 3 | |
| COM-781 | Written Communication in the Workplace ► -OR- | O E | 3 | ◆ |
| ENG-105 | Composition I ► | O E | 3 | ◆ |
| MAT-748 | Technical Math II ► * -OR- | | 3 | ◆ |
| MAT-134 | Trigonometry and Analytic Geometry ► | | 3 | ◆ |
| | | **Total Credits** | **18** | |

* Completion of MAT-128 with a minimum grade of C will satisfy the MAT-741 and MAT-748 course requirement.

| Term 3 | | | | |
|---|---|---|---|---|
| CET-223 | Soils, Testing, and Foundations ► | | 3 | |
| CET-233 | Fundamentals of GPS and GIS ► | | 3 | |
| CON-266 | Construction Safety | | 3 | |
| EGT-243 | Statics and Strength of Materials ► | | 3 | |
| PHY-183 | Applied Physics ► -OR- | | 3 | ◆ |
| PHY-162 | College Physics I ► | | 4 | ◆ |
| PSY-102 | Human and Work Relations -OR- | O E | 3 | ◆ |
| PSY-111 | Introduction to Psychology -OR- | O E | 3 | ◆ |
| SOC-110 | Introduction to Sociology | O | 3 | ◆ |
| | | **Total Credits** | **18** | |

| Term 4 | | | |
|---|---|---|---|
| CET-133 | Construction Methods and Resources ► | | 3 |
| CET-256 | Land Surveying ► | | 3 |
| CET-262 | Environmental Technology ► | | 3 |
| CET-285 | Structural Steel/Reinforced Concrete Design ► | | 3 |
| CET-296 | Site Planning and Development ► | | 3 |
| SPC-101 | Fundamentals of Oral Communication | | 3 |
| | | **Total Credits** | **18** |

# CNC Machining and Tool-Making Technology

The CNC Machining and Tool-Making Technology program prepares you for a variety of CNC careers.

During your first year, you will gain basic machining knowledge and skills using manual and CNC machines, computer-aided drafting (CAD) and computer-aided machining (CAM) programming, lathes, mills, and electrical-discharge machines (EDMs). After completing your first year, you can earn a diploma in CNC Machining Technology, a certificate as a CNC Machine Operator, or a certificate as a CNC Machine Set-Up Specialist.

During your second year, gain hands-on experience in tool-making, die building, mold making, jig and fixture building, tool room machining, and basic design skills. You are also introduced to manual and coordinate measuring machine (CMM) inspection. You will earn an Associate of Applied Science degree.

## Hands-On Learning Opportunities

- CNC Lab: Use the latest equipment in the industry as you learn and perfect your skills on various type of CNC and production manufacturing machines.
- Virtual CNC: Practice and gain confidence in your programming skills of CNC machines, mills, and lathes of the most widely used brands.

## Transfer Information

The University of Northern Iowa's Department of Applied Engineering and Technical Management has a variety of documented pathways between Hawkeye's CNC Machining and Tool-Making Technology AAS degree program and a bachelor degree at UNI. Check out UNI's transfer guides at chas.uni.edu/aetm/prospective-students/transfer-students/transfer-guides-hawkeye-community-college for the following programs to learn more:

- Automation Engineering Technology
- Manufacturing Engineering Technology
- Technology Management

If you plan to transfer, work closely with a program advisor to ensure courses transfer and you meet program requirements.

## Careers

Graduates find employment working in a variety of positions including:

- Tool and die maker
- CNC machinist
- CNC machine operator
- CNC set-up specialist

### Example Careers and Average Wages

| | Entry | Average | Experienced |
|---|---|---|---|
| **Computer Numerically Controlled Machine Tool Operators** | $31,900 | $42,200 | $47,400 |
| **Computer Numerically Controlled Machine Tool Programmers** | $41,500 | $52,700 | $58,300 |
| **Machinists** | $34,900 | $45,400 | $50,600 |
| **Tool and Die Makers** | $40,100 | $52,000 | $58,300 |

*Source: 2022 Iowa Wage Report, Iowa Workforce Development*

Many graduates in this field work overtime. Overtime wages are not included in the above average wages.

### Employers

The following is a partial list of employers who have hired graduates from this program:

| Business | Location |
|---|---|
| Accurate Gear and Machine, Inc. | Waterloo, IA |
| Blackhawk Engineering, Inc. | Cedar Falls, IA |
| Criterion Manufacturing | Waterloo, IA |
| Geater Machining & Manufacturing, Co. | Independence, IA |
| GMT Corporation | Waverly, IA |
| Iowa Laser Technology | Cedar Falls, IA |
| John Deere | Waterloo, IA |
| Viking Pump, Inc. | Cedar Falls, IA |

## Program Admission

### Apply at Hawkeye

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions.
3. Demonstrate College Readiness.

### College Readiness Admission Requirement

In order to be eligible for the CNC Machining and Tool-Making Technology program, all students must meet minimum score requirements and/or successfully complete the required college success courses in English, reading, and math with a C- grade or higher at Hawkeye Community College or comparable courses at another accredited college. For appropriate college success course placement, work with your program advisor.

| | ALEKS | ACCUPLACER | COMPASS | ACT | ACCUPLACER Next Generation | GPA |
|---|---|---|---|---|---|---|
| **Math** | 6 | 40 Arithmetic | 24 Pre-Algebra | 14 | 240 Arithmetic<br>241 Quantitative Reasoning, Algebra, and Statistics | 2.00 |
| **Reading** | --- | 58 | 69 | 16 | 239 | 2.50 |
| **Writing** | --- | 42 Sentence Skills | 20 | 13 | 229 | 1.00 |

## Program Acceptance

Applicants successfully demonstrating college readiness criteria are eligible for acceptance.

Applicants falling short of successful demonstration of college readiness criteria will be accepted to a Pre-Program. As a pre-program student, you will begin with general education and prerequisite classes. An advisor will help you create an academic plan to meet your program admission requirements. Once you have completed your pre-program coursework contact Admissions.

# CNC Machining and Tool-Making Technology AAS Degree Courses

| | |
|---|---|
| **Award** | Associate of Applied Science (AAS) |
| **Credits** | 80 |
| **Program Start** | Fall |
| **Time to Complete** | 2 years |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ▶ | Course has a prerequisite and/or corequisite. |
| **O** | Course meets 100% online. |
| **E** | Course meets face-to-face after 5:00pm. |
| **8WK1** | Course meets the first 8 weeks of the term. |
| **8WK2** | Course meets the second 8 weeks of the term. |

| **Term 1** | | | |
|---|---|---|---|
| MFG-157 | Introduction to CNC Programming I | 8WK1 | 2 |
| MFG-158 | Introduction to CNC Programming II ▶ | 8WK2 | 2 |
| MAT-772 | Applied Math -OR- | | 3 |
| | Math Elective | | 3 |
| MFG-122 | Machine Trade Printreading I | | 3 |
| MFG-211 | Basic Machine Theory | | 2 |
| MFG-222 | Machine Operations I ▶ | | 4 |
| MFG-302 | CNC Fundamentals | | 3 |
| | | **Total Credits** | **19** |

| Term 2 | | | | |
|---|---|---|---|---|
| COM-781 | Written Communication in the Workplace ► -OR- | O E | 3 | ◆ |
| ENG-105 | Composition I ► | O E | 3 | ◆ |
| MFG-142 | Geometric Dimensioning Tolerancing ► | | 3 | |
| MFG-214 | Advanced Machine Theory | | 2 | |
| MFG-228 | Machine Operations II | | 4 | |
| MFG-309 | CNC Programming Theory II ► | | 4 | |
| MFG-335 | CNC Operations ► | | 3 | |
| | | | **Total Credits 19** | |

| Term 3 — Summer | | | |
|---|---|---|---|
| MFG-320 | Computer Aided Machining | | 3 |
| MFG-364 | Hydraulic Jigs and Fixtures ► | | 4 |
| MFG-380 | EDM Fundamentals | | 2 |
| | | | **Total Credits 9** |

| Term 4 | | | |
|---|---|---|---|
| MFG-408 | Basic Diemaking ► | | 8 |
| MFG-410 | CAD Die Design | | 3 |
| SPC-101 | Fundamentals of Oral Communication | | 3 |
| WEL-402 | Tool Steel Welding and Heat Treatment | | 2 |
| | | | **Total Credits 16** |

| Term 5 | | | | |
|---|---|---|---|---|
| MFG-107 | Introduction to 3D Modeling | | 3 | |
| MFG-431 | Die Revision and Repair ► | | 5 | |
| MFG-452 | Moldmaking ► | | 3 | |
| MFG-525 | CMM Inspection and SPC ► | | 3 | |
| PSY-102 | Human and Work Relations -OR- | O E | 3 | ◆ |
| PSY-111 | Introduction to Psychology -OR- | O E | 3 | ◆ |
| SOC-110 | Introduction to Sociology | O | 3 | ◆ |
| | | | **Total Credits 17** | |

| Math Electives | |
|---|---|
| MAT-110 Math for Liberal Arts ► | 3 |
| MAT-121 College Algebra ► | 4 |
| 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 |

# CNC Machining Technology Diploma Courses

| | |
|---|---|
| **Award** | Diploma |
| **Credits** | 47 |
| **Program Start** | Fall |
| **Time to Complete** | 1 year |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ▶ | Course has a prerequisite and/or corequisite. |
| **O** | Course meets 100% online. |
| **E** | Course meets face-to-face after 5:00pm. |
| **8WK1** | Course meets the first 8 weeks of the term. |
| **8WK2** | Course meets the second 8 weeks of the term. |

| **Term 1** | | | |
|---|---|---|---|
| MFG-157 | Introduction to CNC Programming I | 8WK1 | 2 |
| MFG-158 | Introduction to CNC Programming II ▶ | 8WK2 | 2 |
| MAT-772 | Applied Math -OR- | | 3 |
| | Math Elective | | 3 |
| MFG-122 | Machine Trade Printreading I | | 3 |
| MFG-211 | Basic Machine Theory | | 2 |
| MFG-222 | Machine Operations I ▶ | | 4 |
| MFG-302 | CNC Fundamentals | | 3 |
| | | **Total Credits** | **19** |

| Term 2 | | | | |
|---|---|---|---|---|
| COM-781 | Written Communication in the Workplace ► -OR- | O E | 3 | ◆ |
| ENG-105 | Composition I ► | O E | 3 | ◆ |
| MFG-142 | Geometric Dimensioning Tolerancing ► | | 3 | |
| MFG-214 | Advanced Machine Theory | | 2 | |
| MFG-228 | Machine Operations II | | 4 | |
| MFG-309 | CNC Programming Theory II ► | | 4 | |
| MFG-335 | CNC Operations ► | | 3 | |
| | | **Total Credits** | **19** | |

| Term 3 — Summer | | | |
|---|---|---|---|
| MFG-320 | Computer Aided Machining | 3 | |
| MFG-364 | Hydraulic Jigs and Fixtures ► | 4 | |
| MFG-380 | EDM Fundamentals | 2 | |
| | **Total Credits** | **9** | |

| Math Electives | | | |
|---|---|---|---|
| MAT-110 | Math for Liberal Arts ► | 3 | |
| MAT-121 | College Algebra ► | 4 | |
| 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 | |

# CNC Machine Set-Up Specialist Certificate Courses

| | |
|---|---|
| **Award** | Certificate |
| **Credits** | 38 |
| **Program Start** | Fall |
| **Time to Complete** | 9 months |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ▶ | Course has a prerequisite and/or corequisite. |
| **O** | Course meets 100% online. |
| **E** | Course meets face-to-face after 5:00pm. |
| **8WK1** | Course meets the first 8 weeks of the term. |
| **8WK2** | Course meets the second 8 weeks of the term. |

| **Term 1** | | | |
|---|---|---|---|
| MFG-157 | Introduction to CNC Programming I | 8WK1 | 2 |
| MFG-158 | Introduction to CNC Programming II ▶ | 8WK2 | 2 |
| MAT-772 | Applied Math -OR-<br>Math Elective | | 3 |
| MFG-122 | Machine Trade Printreading I | | 3 |
| MFG-211 | Basic Machine Theory | | 2 |
| MFG-222 | Machine Operations I ▶ | | 4 |
| MFG-302 | CNC Fundamentals | | 3 |
| | | **Total Credits** | **19** |

| Term 2 | | | | |
|---|---|---|---|---|
| COM-781 | Written Communication in the Workplace ► -OR- | O E | 3 | ◆ |
| ENG-105 | Composition I ► | O E | 3 | ◆ |
| MFG-142 | Geometric Dimensioning Tolerancing ► | | 3 | |
| MFG-214 | Advanced Machine Theory | | 2 | |
| MFG-228 | Machine Operations II | | 4 | |
| MFG-309 | CNC Programming Theory II ► | | 4 | |
| MFG-335 | CNC Operations ► | | 3 | |
| | | **Total Credits** | **19** | |

| Math Electives | | |
|---|---|---|
| MAT-110 | Math for Liberal Arts ► | 3 |
| MAT-121 | College Algebra ► | 4 |
| 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 |

# CNC Machine Operator Certificate Courses

| | |
|---|---|
| **Award** | Certificate |
| **Credits** | 19 |
| **Program Start** | Fall |
| **Time to Complete** | 4 months |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ▶ | Course has a prerequisite and/or corequisite. |
| **O** | Course meets 100% online. |
| **E** | Course meets face-to-face after 5:00pm. |
| **8WK1** | Course meets the first 8 weeks of the term. |
| **8WK2** | Course meets the second 8 weeks of the term. |

| **Term 1** | | | |
|---|---|---|---|
| MFG-157 | Introduction to CNC Programming I | 8WK1 | 2 |
| MFG-158 | Introduction to CNC Programming II ▶ | 8WK2 | 2 |
| MAT-772 | Applied Math -OR- | | 3 |
| | Math Elective | | 3 |
| MFG-122 | Machine Trade Printreading I | | 3 |
| MFG-211 | Basic Machine Theory | | 2 |
| MFG-222 | Machine Operations I ▶ | | 4 |
| MFG-302 | CNC Fundamentals | | 3 |
| | | **Total Credits** | **19** |

| Math Electives | |
|---|---|
| MAT-110 Math for Liberal Arts ► | 3 |
| MAT-121 College Algebra ► | 4 |
| 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 prepares you with the knowledge and skills needed to work with electronics engineers to design, develop, and manufacture industrial and consumer electronic equipment. You will learn how to operate, program, test, troubleshoot, and repair equipment such as industrial control systems, navigational equipment, two-way radios, wireless technologies, radar, and computer systems. You will gain hands-on training with:

- Electrical schematic reading and drafting
- Electronic communications
- Electronics manufacturing
- Electronics maintenance
- Computer and business machine repair
- Electronics design and development
- In-depth applied programming with hardware interfacing
- Networking

## Transfer Information

The University of Northern Iowa's Department of Applied Engineering and Technical Management has a variety of documented pathways between Hawkeye's Electronics Engineering Technology AAS degree program and a bachelor degree at UNI. Check out UNI's transfer guides at chas.uni.edu/aetm/prospective-students/transfer-students/transfer-guides-hawkeye-community-college for the following programs to learn more:

- Electrical Engineering Technology
- Technology Management

If you plan to transfer, work closely with a program advisor to ensure courses transfer and you meet program requirements.

## Careers

Graduates generally find employment at manufacturing, technology, and engineering companies. Positions include but are not limited to:

- Medical electronics technician
- Electronics communication technician
- Manufacturing test technician
- Engineering technician
- Computer repair technician
- Computer software technician
- Business machine service technician
- Computer network technician
- Industrial maintenance technician
- Quality assurance technicians

### Example Careers and Average Wages

| | Entry | Average | Experienced |
|---|---|---|---|
| **Electrical and Electronics Engineering Technologists and Technicians** | $48,500 | $67,800 | $77,500 |
| **Electrical and Electronics Repairers for Commercial and Industrial Equipment** | $47,200 | $62,000 | $69,500 |

*Source: 2022 Iowa Wage Report, Iowa Workforce Development*

### Employers

The following is a partial list of employers who have hired graduates from this program:

| Business | Location |
|---|---|
| Collins Aerospace | Cedar Rapids, IA |
| ConAgra Foods, Inc. | Waterloo, IA |
| GARMIN | Olathe, KS |
| John Deere | Waterloo, IA |
| MercyOne | Waterloo, IA |
| Nestlé USA | Waverly, IA |
| Randstad Technologies | Cedar Rapids, IA |
| Skyworks Solutions, Inc. | Cedar Rapids, IA |
| Target Distribution Center | Cedar Falls, IA |

## Program Admission

### Apply at Hawkeye

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions.
3. Demonstrate College Readiness

### College Readiness Admission Requirement

In order to be eligible for the Electronics Engineering Technology program, all students must meet minimum score requirements and/or successfully complete the required college success courses in English, reading, and math with a "C" grade or higher at Hawkeye Community College or comparable courses at another accredited college. For appropriate college success course placement, work with your program advisor.

| | ALEKS | ACCUPLACER | COMPASS | ACT | ACCUPLACER Next Generation | GPA |
|---|---|---|---|---|---|---|
| **Math** | 30 | 85 Elementary Algebra | 42 Algebra | 19 | 259 Quantitative Reasoning, Algebra, and Statistics | 2.80 |
| **Reading** | --- | 58 | 69 | 16 | 239 | 2.50 |
| **Writing** | --- | 64 Sentence Skills | 41 | 16 | 240 | 2.50 |

## Program Acceptance

Applicants meeting the Basic Skill Competencies are eligible for acceptance.

Applicants not meeting the Basic Skill Competencies will be accepted to a pre-program. As a pre-program student, you will begin with general education and prerequisite classes. An advisor will help you create an academic plan to meet your program admission requirements. Once you have completed your pre-program coursework contact Admissions.

# Electronics Engineering Technology AAS Degree Courses

| | |
|---|---|
| **Award** | Associate of Applied Science (AAS) |
| **Credits** | 85 |
| **Program Start** | Fall |
| **Time to Complete** | 2 years |
| **Class Meets** | Monday – Friday 8:00am – 3:00pm |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ▶ | Course has a prerequisite and/or corequisite. |
| **O** | Course meets 100% online. |
| **E** | Course meets face-to-face after 5:00pm. |
| **8WK1** | Course meets the first 8 weeks of the term. |
| **8WK2** | Course meets the second 8 weeks of the term. |

| **Term 1** | | | | |
|---|---|---|---|---|
| ELT-290 | DC Electricity ▶ | 8WK1 | 4 | |
| ELT-291 | AC Electricity ▶ | 8WK2 | 4 | |
| EGT-108 | Principles of Engineering -OR- | | 3 | |
| EGT-410 | PLTW - Principles of Engineering | | 3 | |
| IND-100 | Basic Mechanical Systems | | 2 | |
| IND-111 | Industrial Safety Mechanical Systems | | 1 | |
| MAT-504 | Electronics Math I ▶ -OR- | O | 4 | ◆ |
| MAT-210 | Calculus I ▶ | O | 4 | ◆ |
| | | **Total Credits** | **18** | |

| Term 2 | | | | |
|---|---|---|---|---|
| ELT-104 | Electronics Drafting ► -OR- | | 3 | |
| CAD-118 | Technical Drawing and CAD ► | | 3 | |
| ELT-321 | Operational Amplifiers ► | | 3 | |
| ELT-322 | Electronics Devices ► | | 4 | |
| ELT-600 | Applied Computer Programming | | 3 | |
| MAT-514 | Electronics Math II ► | | 4 | |
| SPC-101 | Fundamentals of Oral Communication | | 3 | |
| | | **Total Credits** | **20** | |

| Term 3 — Summer | | | | |
|---|---|---|---|---|
| ELT-469 | Digital Circuits and Systems ► -OR- | | 5 | |
| EGT-420 | PLTW - Digital Electronics | | 3 | |
| PSY-102 | Human and Work Relations -OR- | O E | 3 | ◆ |
| PSY-111 | Introduction to Psychology -OR- | O E | 3 | ◆ |
| SOC-110 | Introduction to Sociology | O | 3 | ◆ |
| | | **Total Credits** | **8** | |

| Term 4 | | | | |
|---|---|---|---|---|
| ELT-403 | Visual Basic ► | | 3 | |
| ELT-415 | Communication Circuits I ► | | 5 | |
| ELT-417 | Computer Systems ► | | 3 | |
| ELT-494 | Data Acquisition Systems ► | | 5 | |
| ELT-802 | Electronics Design Project I | | 1 | |
| PHY-183 | Applied Physics ► | | 3 | |
| | | **Total Credits** | **20** | |

| Term 5 | | | |
|---|---|---|---|
| ELT-156 | Industrial Electronics ► | 5 | |
| ELT-497 | Communication Circuits II ► | 6 | |
| ELT-703 | Introduction to Networking ► | 2 | |
| ELT-704 | Embedded Processors ► | 2 | |
| ELT-803 | Electronics Design Project II ► | 1 | |
| ENG-105 | Composition I ► -OR- | 3 | ▣ |
| COM-781 | Written Communication in the Workplace ► | 3 | ▣ |
| | | **Total Credits 19** | |

# Electronics Technician Diploma Courses

| | |
|---|---|
| **Award** | Diploma |
| **Credits** | 46 |
| **Program Start** | Fall |
| **Time to Complete** | 1 year |
| **Class Meets** | Monday – Friday 8:00am – 3:00pm |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ► | Course has a prerequisite and/or corequisite. |
| **O** | Course meets 100% online. |
| **E** | Course meets face-to-face after 5:00pm. |
| **8WK1** | Course meets the first 8 weeks of the term. |
| **8WK2** | Course meets the second 8 weeks of the term. |

| **Term 1** | | | | |
|---|---|---|---|---|
| ELT-290 | DC Electricity ► | 8WK1 | 4 | |
| ELT-291 | AC Electricity ► | 8WK2 | 4 | |
| EGT-108 | Principles of Engineering -OR- | | 3 | |
| EGT-410 | PLTW - Principles of Engineering | | 3 | |
| IND-100 | Basic Mechanical Systems | | 2 | |
| IND-111 | Industrial Safety Mechanical Systems | | 1 | |
| MAT-504 | Electronics Math I ► -OR- | O | 4 | ◆ |
| MAT-210 | Calculus I ► | O | 4 | ◆ |
| | | **Total Credits** | **18** | |

| Term 2 | | | | |
|---|---|---|---|---|
| ELT-104 | Electronics Drafting ► -OR- | | 3 | |
| CAD-118 | Technical Drawing and CAD ► | | 3 | |
| ELT-321 | Operational Amplifiers ► | | 3 | |
| ELT-322 | Electronics Devices ► | | 4 | |
| ELT-600 | Applied Computer Programming | | 3 | |
| MAT-514 | Electronics Math II ► | | 4 | |
| SPC-101 | Fundamentals of Oral Communication | | 3 | |
| | | **Total Credits** | **20** | |

| Term 3 — Summer | | | | |
|---|---|---|---|---|
| ELT-469 | Digital Circuits and Systems ► -OR- | | 5 | |
| EGT-420 | PLTW - Digital Electronics | | 3 | |
| PSY-102 | Human and Work Relations -OR- | O E | 3 | ◆ |
| PSY-111 | Introduction to Psychology -OR- | O E | 3 | ◆ |
| SOC-110 | Introduction to Sociology | O | 3 | ◆ |
| | | **Total Credits** | **8** | |

# Electronics Installer Certificate Courses

| | |
|---|---|
| **Award** | Certificate |
| **Credits** | 35 |
| **Program Start** | Fall |
| **Time to Complete** | 9 months |
| **Class Meets** | Monday – Friday 8:00am – 3:00pm |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ► | Course has a prerequisite and/or corequisite. |
| **O** | Course meets 100% online. |
| **8WK1** | Course meets the first 8 weeks of the term. |
| **8WK2** | Course meets the second 8 weeks of the term. |

| **Term 1** | | | | |
|---|---|---|---|---|
| ELT-290 | DC Electricity ► | 8WK1 | 4 | |
| ELT-291 | AC Electricity ► | 8WK2 | 4 | |
| EGT-108 | Principles of Engineering -OR- | | 3 | |
| EGT-410 | PLTW - Principles of Engineering | | 3 | |
| IND-100 | Basic Mechanical Systems | | 2 | |
| IND-111 | Industrial Safety Mechanical Systems | | 1 | |
| MAT-504 | Electronics Math I ► -OR- | O | 4 | ◆ |
| MAT-210 | Calculus I ► | O | 4 | ◆ |
| | | **Total Credits** | **18** | |

| Term 2 | | |
|---|---|---|
| ELT-104 | Electronics Drafting ► -OR- | 3 |
| CAD-118 | Technical Drawing and CAD ► | 3 |
| ELT-321 | Operational Amplifiers ► | 3 |
| ELT-322 | Electronics Devices ► | 4 |
| ELT-600 | Applied Computer Programming | 3 |
| MAT-514 | Electronics Math II ► | 4 |
| | | **Total Credits 17** |

# Industrial Automation Technology

The Industrial Automation Technology program provides you the opportunity to develop skills and knowledge required in the manufacturing industry to install, program, maintain, repair, and troubleshoot high-tech, computerized machinery. You will gain hands-on training with:

- Programmable logic controller (PLC) computers
- CNC machines
- Robotics
- Electronic components
- Mechanical systems
- Fluid power
- And much more

With in-depth knowledge of the manufacturing process and state-of-the-art equipment, you will be a problem solver working to keep production running. You will learn through hands-on training using the state-of-the-art technology used in the workplace. Technology brands include but is not limited to:

- Fanuc
- Allen Bradley
- Siemens
- Okuma
- Hardinge
- Rockwell

## Transfer Information

The University of Northern Iowa's Department of Applied Engineering and Technical Management has a variety of documented pathways between Hawkeye's Industrial Automation Technology AAS degree program and a bachelor degree at UNI. Check out UNI's transfer guides at chas.uni.edu/aetm/prospective-students/transfer-students/transfer-guides-hawkeye-community-college for the following programs to learn more:

- Automation Engineering Technology
- Technology Management

If you plan to transfer, work closely with a program advisor to ensure courses transfer and you meet program requirements.

## Enhance Iowa Grant

The Industrial Automation Technology program is part of the Enhance Iowa project, a grant from the US Department of Labor for equipment, training, and simulation to help prepare individuals in the high demand field of industrial maintenance and automation.

## Careers

Graduates generally work in industrial maintenance positions and find employment in manufacturing, food processing, and business environments. Positions include but are not limited to:

- CNC installation/maintenance technician
- Industrial electricians
- Industrial mechanics
- Industrial programmers
- Industrial maintenance workers

## Example Careers and Average Wages

| | Entry | Average | Experienced |
|---|---|---|---|
| **Electrical and Electronics Repairers, Commercial and Industrial Equipment** | $47,200 | $62,000 | $69,500 |
| **General Maintenance and Repair Workers** | $30,300 | $43,400 | $49,900 |
| **Industrial Machinery Mechanics** | $43,000 | $55,900 | $62,300 |
| **Machinery Maintenance Workers** | $42,900 | $55,200 | $61,400 |
| **Mechanical Engineering Technologists and Technicians** | $41,700 | $59,100 | $67,700 |
| **Electro-Mechanical and Mechatronics Technologists and Technicians (Robotics Technicians)** | $47,100 | $62,300 | $69,900 |

*Source: 2022 Iowa Wage Report, Iowa Workforce Development*

## Employers

The following is a partial list of employers who have hired graduates from this program:

| Business | Location |
|---|---|
| Advanced Heat Treat Corporation | Waterloo, IA |
| Blackhawk Engineering | Cedar Falls, IA |
| ConAgra Foods, Inc. | Waterloo, IA |
| Iowa Laser Technology | Cedar Falls, IA |
| John Deere | Waterloo, IA |
| Nestlé USA | Waverly, IA |
| Rockwell Automation | Cedar Rapids, IA |
| Target Distribution Center | Cedar Falls, IA |
| TDS Automation, Inc. | Waverly, IA |
| Tyson Foods, Inc. | Waterloo, IA |

# Program Admission

## Apply at Hawkeye

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions.
3. Demonstrate College Readiness.

## College Readiness Admission Requirement

In order to be eligible for the Industrial Automation Technology program, all students must meet minimum score requirements and/or successfully complete the required college success courses in English, reading, and math with a C- grade or higher at Hawkeye Community College or comparable courses at another accredited college. For appropriate college success course placement, work with your program advisor.

| | ALEKS | ACCUPLACER | COMPASS | ACT | ACCUPLACER Next Generation | GPA |
|---|---|---|---|---|---|---|
| **Math** | 6 | 40 Arithmetic | 24 Pre-Algebra | 14 | 240 Arithmetic<br>241 Quantitative Reasoning, Algebra, and Statistics | 2.00 |
| **Reading** | --- | 76 | 82 | 19 | 251 | 2.80 |
| **Writing** | --- | 64 Sentence Skills | 41 | 16 | 240 | 2.50 |

## Program Acceptance

Applicants successfully demonstrating college readiness criteria are eligible for acceptance.

Applicants falling short of successful demonstration of college readiness criteria will be accepted to a Pre-Program. As a pre-program student, you will begin with general education and prerequisite classes. An advisor will help you create an academic plan to meet your program admission requirements. Once you have completed your pre-program coursework contact Admissions.

# Industrial Automation Technology AAS Degree Courses

| | |
|---|---|
| **Award** | Associate of Applied Science (AAS) |
| **Credits** | 66 |
| **Program Start** | Fall |
| **Time to Complete** | 2 years |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ▶ | Course has a prerequisite and/or corequisite. |
| **O** | Course meets 100% online. |
| **E** | Course meets face-to-face after 5:00pm. |
| **8WK1** | Course meets the first 8 weeks of the term. |
| **8WK2** | Course meets the second 8 weeks of the term. |

| Term 1 | | | | | |
|---|---|---|---|---|---|
| ELT-139 | Electrical Systems ► | 8WK1 | | 3 | |
| EGT-140 | Fluid Power | 8WK2 | | 2 | |
| ELT-239 | Advanced Electrical Systems ► | 8WK2 | | 3 | |
| ELT-315 | Digital Logic for Industrial Applications ► -OR- | | | 2 | |
| EGT-420 | PLTW - Digital Electronics | | | 3 | |
| IND-111 | Industrial Safety Mechanical Systems | | | 1 | |
| IND-153 | Industrial Mechanics | | | 3 | |
| MAT-772 | Applied Math -OR- | | | 3 | |
| | Math Elective | | | 3 | |
| | | | **Total Credits** | **17** | |

| Term 2 | | | | | |
|---|---|---|---|---|---|
| ELT-215 | Motors and Controls ► | 8WK1 | | 2 | |
| ELT-736 | Instrumentation and Control ► | 8WK1 | | 2 | |
| ELT-234 | PLC Programming ► | 8WK2 | | 2 | |
| WEL-339 | Electromechanical Maintenance | 8WK2 | | 3 | |
| EGT-149 | Fluid Power Systems II ► | | | 3 | |
| MFG-193 | Machine Shop Processes | | | 3 | |
| PSY-102 | Human and Work Relations -OR- | | O E | 3 | ◆ |
| PSY-111 | Introduction to Psychology -OR- | | O E | 3 | ◆ |
| SOC-110 | Introduction to Sociology | | O | 3 | ◆ |
| | | | **Total Credits** | **18** | |

| Term 3 | | | | | |
|---|---|---|---|---|---|
| EGT-154 | Pneumatics | 8WK1 | | 2 | |
| EGT-212 | Hydraulics Troubleshooting ► | 8WK1 | | 2 | |
| ELT-532 | Semiconductors for Industrial Applications ► | 8WK1 | | 2 | |
| ELT-216 | DC Controls Circuits ► | 8WK2 | | 2 | |
| ELT-240 | PLCs II ► | 8WK2 | | 2 | |
| ELT-120 | Schematics for Electromechanical Techs ► | | | 3 | |
| SPC-101 | Fundamentals of Oral Communication | | | 3 | |
| | | | **Total Credits** | **16** | |

| Term 4 | | | | | |
|---|---|---|---|---|---|
| ELT-133 | Electric Motor Drives | 8WK1 | | 2 | |
| ELT-245 | PLCs III ► | 8WK1 | | 2 | |
| MFG-366 | General CNC Mill Maintenance | 8WK1 | | 2 | |
| ATR-145 | Applied Industrial Robotics | 8WK2 | | 2 | |
| ELT-444 | Industrial Networking ► | 8WK2 | | 2 | |
| ELT-818 | Electrical Troubleshooting ► | 8WK2 | | 2 | |
| COM-781 | Written Communication in the Workplace ► -OR- | | O E | 3 | ◆ |
| ENG-105 | Composition I ► | | O E | 3 | ◆ |
| | | **Total Credits 15** | | | |

| Math Electives | | |
|---|---|---|
| MAT-102 | Intermediate Algebra | 4 |
| MAT-110 | Math for Liberal Arts ► | 3 |
| MAT-121 | College Algebra ► | 4 |
| MAT-128 | Precalculus ► | 4 |
| MAT-134 | Trigonometry and Analytic Geometry ► | 3 |
| MAT-156 | Statistics ► | 3 |
| MAT-210 | Calculus I ► | 4 |

# Industrial Equipment Maintenance Diploma Courses

| | |
|---|---|
| **Award** | Diploma |
| **Credits** | 32 |
| **Program Start** | Fall |
| **Time to Complete** | 9 months |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ▶ | Course has a prerequisite and/or corequisite. |
| **O** | Course meets 100% online. |
| **E** | Course meets face-to-face after 5:00pm. |
| **8WK1** | Course meets the first 8 weeks of the term. |
| **8WK2** | Course meets the second 8 weeks of the term. |

| Term 1 | | | |
|---|---|---|---|
| ELT-139 | Electrical Systems ► | 8WK1 | 3 |
| EGT-140 | Fluid Power | 8WK2 | 2 |
| ELT-239 | Advanced Electrical Systems ► | 8WK2 | 3 |
| ELT-315 | Digital Logic for Industrial Applications ► -OR- | | 2 |
| EGT-420 | PLTW - Digital Electronics | | 3 |
| IND-111 | Industrial Safety Mechanical Systems | | 1 |
| IND-153 | Industrial Mechanics | | 3 |
| MAT-772 | Applied Math -OR- | | 3 |
| | Math Elective | | 3 |
| | | **Total Credits** | **17** |

| Term 2 | | | |
|---|---|---|---|
| ELT-215 | Motors and Controls ► | 8WK1 | 2 |
| ELT-736 | Instrumentation and Control ► | 8WK1 | 2 |
| ELT-234 | PLC Programming ► | 8WK2 | 2 |
| WEL-339 | Electromechanical Maintenance | 8WK2 | 3 |
| EGT-149 | Fluid Power Systems II ► | | 3 |
| MFG-193 | Machine Shop Processes | | 3 |
| | | **Total Credits** | **15** |

| Math Electives | | |
|---|---|---|
| MAT-102 | Intermediate Algebra | 4 |
| MAT-110 | Math for Liberal Arts ► | 3 |
| MAT-121 | College Algebra ► | 4 |
| MAT-128 | Precalculus ► | 4 |
| MAT-134 | Trigonometry and Analytic Geometry ► | 3 |
| MAT-156 | Statistics ► | 3 |
| MAT-210 | Calculus I ► | 4 |

# Advanced Manufacturing Welding

The Advanced Manufacturing Welding program prepares you for a variety of welding careers. Coursework is aligned with the American Welding Society's SENSE standards. You will learn various welding techniques, including:

- Gas metal arc welding
- Thermal cutting
- Shielded metal arc welding
- Flux cored arc welding
- Gas tungsten arc welding

You will also gain the knowledge and skills in:

- Blueprint reading
- Metal types and the welding applications to use with them
- Metal cutting and fabrication
- Welding positions
- Pipe welding
- Weld inspection and testing
- Robotic welding

The program offers three levels of welding skills and techniques.

- The one-semester Welding certificate prepares you with the skills needed for general maintenance or production welding.
- The two-semester Intermediate Manufacturing Welding diploma prepares you with the skills needed for custom fabrication and construction welding.
- The three-semester Advanced Manufacturing Welding diploma prepares you with the skills needed in food production maintenance and high-end custom fabrication.

## Hands-On Learning Opportunities

- Welding Lab: Use the latest welding equipment in the industry as you learn and perfect your welding skills on various type of metals.
- Virtual Welder: Become comfortable with various types of welds while learning how to reduce costs and improving your efficiency in a safe, controlled environment.
- Robotic Welder: Learn how to program and use robots to weld in modern manufacturing.

## Certification

An independent certification laboratory evaluates your performance for possible certification with the American Welding Society.

## Careers

Graduates find jobs as maintenance, production, manufacturing, construction, custom fabrication, or job shop welders. With advanced skill, graduates may find employment as pipe welders or iron workers.

### Example Careers and Average Wages

| | Entry | Average | Experienced |
|---|---|---|---|
| **Welders, Cutters, Solderers, and Brazers** | $35,000 | $43,700 | $48,000 |
| **Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders** | $36,400 | $43,800 | $47,400 |

*Source: 2022 Iowa Wage Report, Iowa Workforce Development*

Many graduates in this field work overtime. Overtime wages are not included in the above average wages.

### Employers

The following is a partial list of employers who have hired graduates from this program:

| Business | Location |
|---|---|
| ADA Enterprises, Inc. | Northwood, IA |
| Baumgartner Gate Factory | Manchester, IA |
| GMT Corporation | Waverly, IA |
| Iowa Laser Technology | Cedar Falls, IA |
| John Deere | Waterloo and Ottumwa, IA |

## Program Admission

### Apply at Hawkeye

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions.
3. Demonstrate College Readiness.

### College Readiness Admission Requirement

In order to be eligible for the Welding program, all students must meet minimum score requirements and/or successfully complete the required college success courses in English, reading, and math with a C- grade or higher at Hawkeye Community College or comparable courses at another accredited college. For appropriate college success course placement, work with your program advisor.

| | ALEKS | ACCUPLACER | COMPASS | ACT | ACCUPLACER Next Generation | GPA |
|---|---|---|---|---|---|---|
| **Math** | 6 | 40 Arithmetic | 24 Pre-Algebra | 14 | 240 Arithmetic<br>241 Quantitative Reasoning, Algebra, and Statistics | 2.00 |
| **Reading** | --- | 58 | 69 | 16 | 239 | 2.50 |

| | ALEKS | ACCUPLACER | COMPASS | ACT | ACCUPLACER Next Generation | GPA |
|---|---|---|---|---|---|---|
| **Writing** | --- | 64 Sentence Skills | 41 | 16 | 240 | 2.50 |

## Program Acceptance

Applicants successfully demonstrating college readiness criteria are eligible for acceptance.

Applicants falling short of successful demonstration of college readiness criteria will be accepted to a Pre-Program. As a pre-program student, you will begin with general education and prerequisite classes. An advisor will help you create an academic plan to meet your program admission requirements. Once you have completed your pre-program coursework contact Admissions.

# Advanced Manufacturing Welding Diploma Courses

| | |
|---|---|
| **Award** | Diploma |
| **Credits** | 44 |
| **Program Start** | Fall, Spring |
| **Time to Complete** | 1 year |
| **Course Format** | Face-to-Face |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023 or Spring 2024**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ► | Course has a prerequisite and/or corequisite. |
| **8WK1** | Course meets the first 8 weeks of the term. |
| **8WK2** | Course meets the second 8 weeks of the term. |

| Term 1 | | | |
|---|---|---|---|
| WEL-228 | Introduction to Welding, Safety, and Health of Welders: SENSE1 | 8WK1 | 1 |
| WEL-233 | Print Reading and Welding Symbol Interpretation: SENSE1 | 8WK1 | 3 |
| WEL-274 | Shielded Metal Arc Welding I: SENSE1 ► | 8WK1 | 3 |
| WEL-374 | SMAW Developmental I ► | 8WK1 | 2 |
| WEL-245 | Gas Metal Arc Welding Spray Transfer: SENSE1 ► | 8WK2 | 2 |
| WEL-262 | Thermal Cutting Processes I - Manual and Mechanized OxyFuel Cutting: SENSE1 ► | 8WK2 | 2 |
| WEL-263 | Thermal Cutting Processes II - Plasma and Carbon Steel Arc: SENSE1 ► | 8WK2 | 2 |
| WEL-346 | GMAW Developmental I ► | 8WK2 | 2 |
| MAT-772 | Applied Math -OR- | | 3 |
| | Math Elective | | 3 |
| | | **Total Credits** | **20** |

| Term 2 | | | |
|---|---|---|---|
| WEL-244 | Gas Metal Arc Welding Short Circuit Transfer: SENSE1 ► | 8WK1 | 2 |
| WEL-280 | Flux Cored Arc Welding (Self-Shielded): SENSE1 ► | 8WK1 | 2 |
| WEL-281 | Flux Cored Arc Welding (Gas-Shielded): SENSE1 ► | 8WK1 | 2 |
| WEL-347 | GMAW Developmental II ► | 8WK1 | 2 |
| WEL-275 | Shielded Metal Arc Welding II: SENSE1 ► | 8WK2 | 3 |
| WEL-375 | SMAW Developmental II ► | 8WK2 | 2 |
| WEL-701 | Robotic Welding | | 3 |
| | | **Total Credits** | **16** |

| Term 3 — Summer | | |
|---|---|---|
| WEL-252 | Gas Tungsten Arc Welding for Aluminum: SENSE1 ► | 1 |
| WEL-253 | Gas Tungsten Arc Welding for Austenitic Stainless Steel: SENSE1 ► | 1 |
| WEL-354 | Gas Tungsten Arc Welding for Carbon Steel ► | 3 |
| WEL-355 | Gas Tungsten Arc Welding: Developmental ► | 3 |
| | **Total Credits** | **8** |

| Math Electives | |
|---|---|
| MAT-102 Intermediate Algebra | 4 |
| MAT-110 Math for Liberal Arts ► | 3 |
| MAT-121 College Algebra ► | 4 |
| 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 |

# Intermediate Manufacturing Welding: GMAW, SMAW, FCAW, and Robotics Diploma Courses

| | |
|---|---|
| **Award** | Diploma |
| **Credits** | 36 |
| **Program Start** | Fall |
| **Time to Complete** | 9 months |
| **Course Format** | Face-to-Face |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ► | Course has a prerequisite and/or corequisite. |
| **8WK1** | Course meets the first 8 weeks of the term. |
| **8WK2** | Course meets the second 8 weeks of the term. |

| Term 1 — Fall | | | |
|---|---|---|---|
| WEL-228 | Introduction to Welding, Safety, and Health of Welders: SENSE1 | 8WK1 | 1 |
| WEL-233 | Print Reading and Welding Symbol Interpretation: SENSE1 | 8WK1 | 3 |
| WEL-274 | Shielded Metal Arc Welding I: SENSE1 ► | 8WK1 | 3 |
| WEL-374 | SMAW Developmental I ► | 8WK1 | 2 |
| WEL-245 | Gas Metal Arc Welding Spray Transfer: SENSE1 ► | 8WK2 | 2 |
| WEL-262 | Thermal Cutting Processes I - Manual and Mechanized OxyFuel Cutting: SENSE1 ► | 8WK2 | 2 |
| WEL-263 | Thermal Cutting Processes II - Plasma and Carbon Steel Arc: SENSE1 ► | 8WK2 | 2 |
| WEL-346 | GMAW Developmental I ► | 8WK2 | 2 |
| MAT-772 | Applied Math -OR- | | 3 |
| | Math Elective | | 3 |
| | | **Total Credits** | **20** |

| Term 2 — Spring | | | |
|---|---|---|---|
| WEL-244 | Gas Metal Arc Welding Short Circuit Transfer: SENSE1 ► | 8WK1 | 2 |
| WEL-280 | Flux Cored Arc Welding (Self-Shielded): SENSE1 ► | 8WK1 | 2 |
| WEL-281 | Flux Cored Arc Welding (Gas-Shielded): SENSE1 ► | 8WK1 | 2 |
| WEL-347 | GMAW Developmental II ► | 8WK1 | 2 |
| WEL-275 | Shielded Metal Arc Welding II: SENSE1 ► | 8WK2 | 3 |
| WEL-375 | SMAW Developmental II ► | 8WK2 | 2 |
| WEL-701 | Robotic Welding | | 3 |
| | | **Total Credits** | **16** |

| Math Electives | |
|---|---|
| MAT-102 Intermediate Algebra | 4 |
| MAT-110 Math for Liberal Arts ► | 3 |
| MAT-121 College Algebra ► | 4 |
| 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 |

# Intermediate Manufacturing Welding: GTAW, Carbon Steel, Aluminum and Stainless Steel Diploma Courses

| | |
|---|---|
| **Award** | Diploma |
| **Credits** | 28 |
| **Program Start** | Spring |
| **Time to Complete** | 7 months |
| **Course Format** | Face-to-Face |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Spring 2024**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ► | Course has a prerequisite and/or corequisite. |
| **8WK1** | Course meets the first 8 weeks of the term. |
| **8WK2** | Course meets the second 8 weeks of the term. |

| Term 1 — Spring | | | |
|---|---|---|---|
| WEL-228 | Introduction to Welding, Safety, and Health of Welders: SENSE1 | 8WK1 | 1 |
| WEL-233 | Print Reading and Welding Symbol Interpretation: SENSE1 | 8WK1 | 3 |
| WEL-274 | Shielded Metal Arc Welding I: SENSE1 ► | 8WK1 | 3 |
| WEL-374 | SMAW Developmental I ► | 8WK1 | 2 |
| WEL-245 | Gas Metal Arc Welding Spray Transfer: SENSE1 ► | 8WK2 | 2 |
| WEL-262 | Thermal Cutting Processes I - Manual and Mechanized OxyFuel Cutting: SENSE1 ► | 8WK2 | 2 |
| WEL-263 | Thermal Cutting Processes II - Plasma and Carbon Steel Arc: SENSE1 ► | 8WK2 | 2 |
| WEL-346 | GMAW Developmental I ► | 8WK2 | 2 |
| MAT-772 | Applied Math -OR- | | 3 |
| | Math Elective | | 3 |
| | | **Total Credits** | **20** |

| Term 2 — Summer | | | |
|---|---|---|---|
| WEL-252 | Gas Tungsten Arc Welding for Aluminum: SENSE1 ► | | 1 |
| WEL-253 | Gas Tungsten Arc Welding for Austenitic Stainless Steel: SENSE1 ► | | 1 |
| WEL-354 | Gas Tungsten Arc Welding for Carbon Steel ► | | 3 |
| WEL-355 | Gas Tungsten Arc Welding: Developmental ► | | 3 |
| | | **Total Credits** | **8** |

| Math Electives | | |
|---|---|---|
| MAT-102 | Intermediate Algebra | 4 |
| MAT-110 | Math for Liberal Arts ► | 3 |
| MAT-121 | College Algebra ► | 4 |
| 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 |

# Welding Certificate Courses

| | |
|---|---|
| **Award** | Certificate |
| **Credits** | 20 |
| **Program Start** | Fall, Spring |
| **Time to Complete** | 4 months |
| **Course Format** | Face-to-Face |

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023 or Spring 2024**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ► | Course has a prerequisite and/or corequisite. |
| **8WK1** | Course meets the first 8 weeks of the term. |
| **8WK2** | Course meets the second 8 weeks of the term. |

| Term 1 | | | |
|---|---|---|---|
| WEL-228 | Introduction to Welding, Safety, and Health of Welders: SENSE1 | 8WK1 | 1 |
| WEL-233 | Print Reading and Welding Symbol Interpretation: SENSE1 | 8WK1 | 3 |
| WEL-274 | Shielded Metal Arc Welding I: SENSE1 ► | 8WK1 | 3 |
| WEL-374 | SMAW Developmental I ► | 8WK1 | 2 |
| WEL-245 | Gas Metal Arc Welding Spray Transfer: SENSE1 ► | 8WK2 | 2 |
| WEL-262 | Thermal Cutting Processes I - Manual and Mechanized OxyFuel Cutting: SENSE1 ► | 8WK2 | 2 |
| WEL-263 | Thermal Cutting Processes II - Plasma and Carbon Steel Arc: SENSE1 ► | 8WK2 | 2 |
| WEL-346 | GMAW Developmental I ► | 8WK2 | 2 |
| MAT-772 | Applied Math -OR- | | 3 |
| | Math Elective | | 3 |
| | | **Total Credits** | **20** |

| Math Electives | | |
|---|---|---|
| MAT-102 | Intermediate Algebra | 4 |
| MAT-110 | Math for Liberal Arts ► | 3 |
| MAT-121 | College Algebra ► | 4 |
| 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 |

## Career Area

# PUBLIC SERVICES

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Police Science

# Police Science

Interested in a career where you can make a difference? Consider a career in public service!

The Police Science program prepares you for a career in public service. This degree will enable you to work in law enforcement, corrections, or security; plus lay a foundation for you to work in adult or juvenile probation and parole, or legal work. Our graduates work in many different roles at the city, county, state, and federal levels.

Careers in public service need trainable people who are of good character with limited criminal history and devoted to solving problems and making communities better. An interest in law is helpful, but not required; but prepare to hone your writing, math, and speaking skills.

Next generation public service professionals are people just like you, interested in helping and protecting others, solving problems, advocating for victims, and interacting with their community. All you need to have is a willingness to build your knowledge, physical fitness, technical, and interpersonal skills.

At Hawkeye Community College our curriculum focuses on building your knowledge and skills through classes such as:

- Police operations
- Crime scene, accident, and general investigations
- Critical incident management
- Criminal and constitutional law
- Report writing and testifying
- Physical fitness conditioning
- Safe and legal use of force in defensive tactics and firearms

All Police Science instructors have law enforcement experience, academic training, and are dedicated to mentoring students. Instructors will coach you to ensure you make ethical choices, maintain a clear criminal history, and care for your physical and emotional fitness and resiliency.

## Hands-On Learning Opportunities

- Crime Scene Lab: Practice legal and ethical evidence collection techniques and analysis.
- Indoor and Outdoor Firing Ranges: Learn safe operation of, and care and maintenance of, firearms
- Virtual Firearms Simulator System (MILO): Learn and practice decision making skills with scenarios that require you to reason appropriate use of force.
- Internship: Gain 128 hours of real-world work experience ensuring you have the skills you need to succeed in your future career.

## Police Academy

Graduates, either newly hired or sponsored by a law enforcement agency, are eligible to attend the New Officer 9-Week Basic Level II Certification Academy. Hawkeye is designated as a Regional Law Enforcement Training Facility by the Iowa Law Enforcement Academy.

## Transfer Information

An articulation agreement allows you to transfer your Police Science coursework to either the Bachelor of Applied Science in Criminal Justice program at the University of Northern Iowa or the Bachelor of Applied Studies program at the University of Iowa.

If you plan to transfer, work closely with the Police Science academic / college success advisor to ensure courses transfer and you meet program requirements.

## Your Criminal History Matters

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

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

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

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

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

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

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

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

# Careers

Graduates are eligible to work in a variety of capacities within the criminal justice field, including city and county law enforcement agencies, corrections and probation systems, and private/corporate security. Additional education and experience may be required to work in specific capacities at the state and federal levels.

The ability to be hired by a law enforcement agency may be impaired by any arrest record, juvenile or adult.

## Example Careers and Average Wages

| | Entry | Average | Experienced |
|---|---|---|---|
| **Detectives and Criminal Investigators** | $59,400 | $85,700 | $98,800 |
| **Gambling Surveillance Officers and Gambling Investigators** | $27,200 | $33,700 | $36,900 |
| **Police and Sheriff's Patrol Officers** | $49,200 | $65,300 | $73,300 |
| **Security Guards** | $23,800 | $35,900 | $41,900 |

*Source: 2022 Iowa Wage Report, Iowa Workforce Development*

## Employers

The following is a list of employers who have hired graduates from this program:

- 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 Admission

1. Apply for admission at Hawkeye.
2. Send official transcripts to Admissions
3. Meet basic skill competencies in reading, writing, and math.

# Police Science AAS Degree Courses

| | |
|---|---|
| **Award** | Associate of Applied Science (AAS) |
| **Credits** | 61 |
| **Program Start** | Fall |
| **Time to Complete** | 2 years |

Students convicted of a felony will not be allowed to enroll in the Firearms and Practicum courses and will not graduate from the Police Science program. Learn how your criminal history matters.

## 2023–2024 Suggested Sequence of Study

**The following suggested sequence of study is for new full-time students starting the program Fall 2023**. Part-time students should visit with a program advisor for a modified sequence of study.

**When registering for classes refer to Self-Service > Student Planning to view your specific program requirements, your progress, and ensure proper registration.**

Courses are subject to change.

| | |
|---|---|
| ◆ | General education course. |
| ▣ | Non-transfer general education course. |
| ► | Course has a prerequisite and/or corequisite. |
| **O** | Course meets 100% online. |
| **E** | Course meets face-to-face after 5:00pm. |
| **8WK1** | Course meets the first 8 weeks of the term. |
| **8WK2** | Course meets the second 8 weeks of the term. |

| **Term 1** | | | | |
|---|---|---|---|---|
| CRJ-100 | Introduction to Criminal Justice | | 3 | |
| CRJ-143 | Police Operations | | 3 | |
| CRJ-234 | Traffic Law | | 2 | |
| MAT-110 | Math for Liberal Arts ► -OR- | O E | 3 | ◆ |
| MAT-156 | Statistics ► -OR- | O E | 3 | ◆ |
| MAT-772 | Applied Math | | 3 | ▣ |
| SPC-101 | Fundamentals of Oral Communication | | 3 | |
| | | **Total Credits** | **14** | |

| Term 2 | | | | |
|---|---|---|---|---|
| CRJ-132 | Constitutional Law | | 3 | |
| CRJ-216 | Employment Strategies for Criminal Justice | | 2 | |
| CRJ-316 | Juvenile Justice ► | | 3 | |
| CRJ-320 | Criminal Justice Ethics | | 3 | |
| ENG-105 | Composition I ► | | 3 | |
| SOC-110 | Introduction to Sociology -OR- | O | 3 | ◆ |
| SOC-115 | Social Problems -OR- | O | 3 | ◆ |
| SOC-205 | Diversity in America | O E | 3 | ◆ |
| | | **Total Credits** | **17** | |

| Term 3 | | | |
|---|---|---|---|
| CRJ-131 | Criminal Law and Procedure | | 3 |
| CRJ-141 | Criminal Investigation ► | | 3 |
| CRJ-200 | Criminology | | 3 |
| CRJ-282 | Crime Scene Investigation ► | | 3 |
| CRJ-285 | Physical Conditioning for Public Services | | 2 |
| CRJ-299 | Current Issues in Criminal Justice ► | | 2 |
| | | **Total Credits** | **16** |

| Term 4 | | | |
|---|---|---|---|
| CRJ-252 | Basic Firearms ► | 8WK1 | 1 |
| CRJ-254 | Advanced Firearms ► | 8WK2 | 1 |
| CRJ-151 | Defensive Tactics ► | | 2 |
| CRJ-266 | Report Writing and Testifying ► | | 3 |
| CRJ-315 | Crisis Intervention ► | | 3 |
| CRJ-322 | Tactical Police Operations ► | | 2 |
| CRJ-952 | Internship ► | | 2 |
| | | **Total Credits** | **14** |

# COURSE DESCRIPTIONS

# ACC: Accounting

## ACC-115 Introduction to Accounting

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.

Credit Hours: 4 Lecture Hours: 64

Course Type: Technical

## ACC-116 Introduction to Accounting II

This course is a continuation of Introduction to Accounting (ACC-115) 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.

Credit Hours: 4 Lecture Hours: 64

Prerequisite(s): Minimum grade of C- in ACC-115 or ACC-152.

Course Type: Technical

## ACC-152 Financial Accounting

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.

Credit Hours: 4 Lecture Hours: 64

Prerequisite(s): Minimum grade of D- in MAT-060 or MAT-063. Or equivalent placement score.

Course Type: General Education / Transfer

## ACC-156 Managerial Accounting

Surveys the basic concepts and procedures of accounting to include managerial, manufacturing and cost accounting for decision making.

Credit Hours: 4 Lecture Hours: 64

Prerequisite(s): Minimum grade of C- in ACC-152.

Course Type: General Education / Transfer

## ACC-160 Payroll Accounting

This course is a study of payroll from payroll laws to journalizing payroll transactions. Emphasis is on computing wages, social security taxes, income tax withholding, unemployment taxes, and journalizing payroll transactions with hands-on experience in preparing all the necessary monthly, quarterly and annual reports. An accounting payroll project will provide hands-on experience in preparing a payroll.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Pre/Co-requisite(s): Minimum grade of C- in ACC-115 or ACC-152.

Course Type: Technical

## ACC-190 Financial Analysis

This course provides the student with a general framework of corporate finance. The emphasis is limited to financial analysis of business performance and evaluation of alternative choices for investments and working capital.

Credit Hours: 2 Lecture Hours: 32

Prerequisite(s): Minimum grade of C- in ACC-156 or ACC-116.

Course Type: Technical

## ACC-222 Cost Accounting

This course provides an introduction to the accounting concepts of manufacturing systems. In addition to job order and process costing systems, profit planning and control programs are emphasized.

Credit Hours: 4 Lecture Hours: 64

Prerequisite(s): Minimum grade of C- in ACC-156 or ACC-116.

Course Type: Technical

## ACC-231 Intermediate Accounting I

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.

Credit Hours: 4 Lecture Hours: 64

Prerequisite(s): Minimum grade of C- in ACC-116 or ACC-156.

Course Type: Technical

## ACC-232 Intermediate Accounting II

This course continues the detailed applications that began in 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.

Credit Hours: 4 Lecture Hours: 64

Prerequisite(s): Minimum grade of C- in ACC-231.

Course Type: Technical

## ACC-240 Emerging Topics in Accounting

The course is designed to inform students about changes and new technology they may encounter in the workplace. It will cover technology and software changes, new career opportunities and other trends in the industry.

Credit Hours: 1 Lecture Hours: 16

Course Type: Technical

## ACC-265 Income Tax Accounting

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.

Credit Hours: 4 Lecture Hours: 64

Course Type: Technical

## ACC-310 Computer Accounting

Provides students with practice and application of the accounting cycle on microcomputers. Topics include ledgers, accounts receivable and payable, payroll, inventory and depreciation. Integrated software packages are introduced.

Credit Hours: 2 Lab Hours: 64

Prerequisite(s): Minimum grade of C- in ACC-115 or ACC-152.

Course Type: Technical

## ACC-360 Accounting Spreadsheets

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.

Credit Hours: 2 Lecture Hours: 0 Lab Hours: 64

Prerequisite(s): Minimum grade of D- in CSC-110 or CSC-116.

Course Type: Technical

## ACC-924 Honors Project

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. This course can be repeated with different content for credit.

Can be completed for up to three credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

# ADM: Administrative Assistant

## ADM-108 Keyboarding Skill Development

The touch keyboarding skill building process is emphasized. This course assists students to improve speed and accuracy and improve their technique on the alphabetic, number and symbol keys. The minimum competency of 35 net words per minute, with no more than five errors per timing, on 3 five-minute timed writings is required.

Credit Hours: 1 Lab Hours: 32

Course Type: Technical

## ADM-164 Administrative Office Applications

This course will integrate the skills and personal qualities necessary for an administrative assistant to perform the operational and supervisory functions for today's computerized office. Simulated office activities in a team environment will be completed using integrated software, problem-solving techniques, and decision-making experiences with special emphasis on creativity, computer applications, and professionalism.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## ADM-200 Legal Document Processing

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.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of D- in BCA-134.

Pre/Co-requisite(s): Minimum grade of D- in ADM-157.

Course Type: Technical

## ADM-203 Legal Office Concepts and Procedures

This course provides an understanding of the legal office environment and offers a broad spectrum of legal concepts and procedures.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of D- in BCA-134.

Course Type: Technical

# ADN: Associate Degree Nursing

## ADN-121 Transition to Professional Nursing

This course focuses on the associate degree nurse as transition occurs from the licensed practical nurse role to the registered nurse role. Course content includes an overview of ethical, legal, and the professional roles/responsibilities of the registered nurse, delegation, prioritization, nursing process, and critical thinking.

Admission to the Associate Degree Nursing Program. This course begins the 3 year time limit for completion of the ADN curriculum. An active permanent Practical Nursing license in good standing is required prior to ADN-226.,

Credit Hours: 2 Lecture Hours: 32

Pre/Co-requisite(s): Minimum grade of B in ADN-122 and ADN-231.

Course Type: Technical

## ADN-122 Advanced Nursing Skills

This course provides supervised practice in a variety of advanced nursing skills in both a lab and clinical setting. Competence in selected nursing skills will be demonstrated in the provision of safe nursing care.

Admission without conditions to the Associate Degree Nursing Program for the current semester.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Pre/Co-requisite(s): Minimum grade of B in ADN-121 and ADN-231.

Course Type: Technical

## ADN-124 Complex Health Alterations

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 complex medical and surgical care. The content includes a review of select respiratory (acid base), endocrine, musculoskeletal, neurological, pain, immunity, and HIV/AIDs health alterations.

Credit Hours: 3 Lecture Hours: 48

Pre/Co-requisite(s): Minimum grade of (P/F) in ADN-125. Minimum grade of B in ADN-128.

Course Type: Technical

## ADN-125 Nursing Clinical V

This clinical course provides opportunities for students to incorporate concepts from course work in bio/psycho/social sciences, humanities, nursing and current evidence-based literature to provide safe, competent care of adult clients experiencing common complex alterations in body systems. The course utilizes the nursing process in order to achieve best practice outcomes in a medical/surgical setting. Particular emphasis is placed on concepts of holistic care, client education, and critical thinking for clients with respiratory (acid base), endocrine, musculoskeletal, neurological, sensory, pain, and immunity disorders complex health alterations.

Credit Hours: 2 Clinic Hours: 96

Pre/Co-requisite(s): Minimum grade of B in ADN-124 and ADN-128.

Course Type: Technical

## ADN-128 Community and Mental Health Nursing

This course focuses on the study and application of modern concepts of community and advanced psychiatric nursing. The nursing process will be used to therapeutically plan client cares, applying the principles of community nursing, mental health, and psychiatric nursing.

Credit Hours: 2 Lecture Hours: 32

Pre/Co-requisite(s): Minimum grade of B in ADN-124. Minimum grade of (P/F) in ADN-125.

Course Type: Technical

## ADN-224 Complex Health Alterations B

The course is a study of the concepts of health and illness utilizing the nursing process in providing comprehensive nursing care for adults requiring complex medical and surgical care. The content includes a review of select cardiovascular, hematology/oncology, fluids/electrolytes (hypovolemic shock), integumentary (burns), gastrointestinal, renal/male reproductive health alterations and physiological adaptations.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Admission criteria. PN Practical Nurse License in Good Standing.

Pre/Co-requisite(s): Minimum grade of Pass in ADN-225. Minimum grade of B in ADN-331.

Course Type: Technical

## ADN-225 Nursing Clinical VI

This clinical course provides opportunities for students to incorporate concepts from course work in bio/psycho/social sciences, humanities, nursing and current evidence-based literature to provide safe, competent care of adult clients experiencing common complex alterations in body systems. The course utilizes the nursing process in order to achieve best practice outcomes in a medical/surgical setting. Particular emphasis is placed on concepts of holistic care, client education and critical thinking for clients with cardiovascular, hematology/oncology, fluids/electrolytes (hypovolemic shock), integumentary (burns), gastrointestinal, and renal/male reproductive.

Credit Hours: 2 Clinic Hours: 96

Prerequisite(s): Minimum grade of B in ADN-224 and ADN-331.

Course Type: Technical

## ADN-226 Complex Maternal Child Health Alterations

This course builds on the concepts of previous nursing courses with an emphasis on the care of high risk maternal and pediatric clients. The focus will be on health promotion, ethical/legal considerations, family-centered care and common alterations seen in high risk maternal and pediatric clients.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of B in ADN-121, ADN-122, ADN-124, ADN-231, and ADN-128.

Pre/Co-requisite(s): Minimum grade of Pass in ADN-227. Minimum grade of B in ADN-333.

Course Type: Technical

## ADN-227 Nursing Clinical Community and Special Populations

This clinical course provides opportunities for students to incorporate concepts from course work in bio/psycho/social sciences, humanities, nursing and current evidence-based literature to provide safe, competent care of maternal, pediatric, mental health and community clients experiencing complex alterations in body systems. The course utilizes the nursing process in order to achieve best practice outcomes in a medical/surgical setting. Particular emphasis is placed on concepts of holistic care, client education and critical thinking.

Credit Hours: 2 Clinic Hours: 96

Prerequisite(s): Minimum grade of B in ADN-121, ADN-122, ADN-124, ADN-125, ADN-128, and AND-231.

Pre/Co-requisite(s): Minimum grade of B in ADN-226 and ADN-333.

Course Type: Technical

## ADN-231 Advanced Pharmacology

This course examines advanced medication administration principles. Emphasis will be placed on intravenous medication therapy, calculation of dosages, infusion rates and titrations. Nursing implications of medication administration in complex health conditions are explored.

Credit Hours: 2 Lecture Hours: 32

Pre/Co-requisite(s): Minimum grade of B in ADN-121 and ADN-122.

Course Type: Technical

## ADN-315 Professional Roles of Nursing Practice

This course focuses on the role of professional nursing, the implementation of leadership and managerial aspects within the nursing discipline. This course will discuss roles of the registered nurse, the nursing process, critical thinking, and Evidence Based Practice guidelines within nursing practice. Preparation for employment is also included.

Credit Hours: 2 Lecture Hours: 32

Course Type: Technical

## ADN-331 Issues in Nursing Management

This course focuses on the study and application of the managerial and leadership aspects of professional nursing. Preparation for the licensing exam, career opportunities, and job searches are also included.

Credit Hours: 2 Lecture Hours: 32

Prerequisite(s): Minimum grade of B in ADN-121, ADN-122, ADN-124, ADN-128, and ADN-231.

Pre/Co-requisite(s): Minimum grade of B in ADN-128, ADN-224, ADN-226, and ADN-333.

Course Type: Technical

## ADN-333 Holistic Client Care

The course reviews holistic care including personal wellness, clinical reasoning, critical thinking, alternative therapies and end of life care.

Credit Hours: 2 Lecture Hours: 32

Pre/Co-requisite(s): Minimum grade of B in ADN-226. Minimum grade of (P/F) in ADN-227.

Course Type: Technical

## ADN-924 Honors Project

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. This course can be repeated with different content for credit.

May be taken for up to 3 credits.

Credit Hours: 1  Lecture Hours: 16

Course Type: General Education / Transfer

# AGA: Agriculture — Agronomy

## AGA-114 Principles of Agronomy

Provides a foundation course in agronomy. Applies crop, soil, and environmental sciences in understanding agricultural systems in the world. Introduces concepts of plant, soil, tillage, pest, environmental, and sustainable aspects of crop production. It includes hands-on learning experiences.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## AGA-154 Fundamentals of Soil Science

Introduces physical, chemical, and biological properties of soils, their formation, classification, and distribution. Uses soils survey and other information sources in balancing agronomic, economic, and environmental concerns in soil management.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## AGA-214 Cash Grains

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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## AGA-284 Pesticide Application Certification

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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## AGA-376 Integrated Pest Management

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, do yield checks, make recommendations for handling any problems.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

# AGA-924 Honors Project

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. This course can be repeated with different content for credit.

May be taken for up to 3 credits.

Credit Hours: 1  Lecture Hours: 16

Course Type: General Education / Transfer

# AGB: Agriculture — Farm Management

## AGB-101 Agricultural Economics

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 is studied.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## AGB-235 Introduction to Agriculture Markets

Presents basic concepts and economics principles related to markets for agricultural inputs and products. Overview of current marketing problems faced by farms and agribusinesses, farm and retail price behavior, structure of markets, food marketing channels, food quality and food safety, and the role of agriculture in the general economy. The implications of consumer preferences at the farm level. Introduction to hedging, futures, and other risk management tools.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## AGB-303 Agriculture Leadership

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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## AGB-330 Farm Business Management

Applies business and economic principles of decision making and problem solving in the management of a farm business. Covers cash flow, partial, enterprise, and whole farm budgeting. Reviews information systems for farm accounting, analysis, and control. Examines obtaining and managing land, capital, and labor resources. Provides alternatives for farm business organization and risk management.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## AGB-331 Entrepreneurship in Agriculture

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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## AGB-336 Agricultural Selling

The course teaches the principles of selling with application to agricultural and food related businesses. Reviews attitudes, value systems, and behavioral patterns that relate to agricultural sales. The following concepts will be examined: marketing, selling strategies, preparing for sales calls, making sales presentations, handling objections, and closing sales. The buying or purchasing process will also be analyzed along with evaluating the agri-selling profession.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

# AGC: Agriculture — Comprehensive — Miscellaneous

## AGC-103 Ag Computers

This course will introduce students to the hardware, software, word processing, presentation, database and spreadsheet programs. Applications of various agricultural management uses are covered throughout. Online applications and resources are also introduced.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## AGC-999 Study Abroad

This course explores relative differences between the student's country and another country with emphasis in discipline of study. Topics include history, geography, culture, food, language, and discipline specific topics. This course can be repeated with different content for credit. This course may be taken for 1 – 5 credits.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

# AGH: Agriculture — Horticulture

## AGH-107 Horticulture Lab

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 three times with different content.

Credit Hours: 1 Lab Hours: 32

Course Type: Technical

## AGH-108 Horticulture Safety

The Horticulture safety course will provide students with the knowledge to recognize safe working practices in the horticulture industry. Outline the standards and expectations required to work safely in the numerous occupations of the horticulture industry. The course will introduce students to the national OSHA safety standards for General Construction and upon their completion of this course will receive the OSHA 10 hour General Construction certification.

Credit Hours: 1 Lab Hours: 32

Course Type: Technical

## AGH-112 Introduction to Turfgrass Management

The course introduces the students to the field of Turfgrass Science. Applying the principles and practices involved in successful maintenance of turfgrass areas will be presented.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## AGH-140 Equipment Operations

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.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Course Type: Technical

## AGH-142 Landscape Construction

Principles and practices of landscape construction will be explained. Curriculum encompasses process from initial client contact to installation of plant material and hardscape. Laboratory work in the course involves landscape installation using various materials and techniques.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## AGH-143 Equipment Repair

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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## AGH-161 Irrigation Systems

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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## AGH-200 Landscape Estimating and Bidding

This course focuses on the fundamentals of creating a landscape project estimate including material take-offs, plant pricing, labor rates, measuring, reading landscape plans and math calculations.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Course Type: Technical

## AGH-211 Advanced Turfgrass Management

The course provides opportunities for students to learn techniques of golf course management and operation. Proper construction of specific golf course areas such as: greens, tees, bunkers, basic golf course design is presented. Budgets, irrigation, maintenance and an integrated pest management program are presented.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## AGH-221 Principles of Horticulture

The course provides an introduction to horticulture covering the basic knowledge and skills associated with growth and development of plants including fruits, vegetables, turfgrass, and ornamentals.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## AGH-248 Identifying Plant and Landscape Problems

This course will cover common insect, disease, and weed identification in various landscape applications along with environmental problems. Techniques for problem identification and finding the tools needed to reach a solution will be a major focus. Strategies such as integrated pest management and chemical treatment will be covered.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## AGH-400 Athletic Field Maintenance

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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## AGH-425 Grounds Maintenance

This course introduced 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. Introduces maintenance practices used in sports complexes, parks and recreation areas, and commercial and industrial grounds.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## AGH-431 Maintaining Turf and Landscape Equipment

This course covers the fundamentals of turf grass and equipment maintenance including shop layout and maintenance scheduling. Practical applications will be covered involving routine and scheduled maintenance of specialty equipment along with practices such as bearing replacement and reel grinding.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## AGH-912 Current Topics in Hort.

This is a capstone course for the Horticulture program. This course provides an overview of current and potential future trends in the green industry. Case studies will be investigated.

Credit Hours: 1 Lecture Hours: 16

Course Type: Technical

# AGM: Agriculture — Mechanics

## AGM-104 Electricity

This course is an in-depth study of theory in the diagnosing and repair of electrical components and circuitry.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Course Type: Technical

## AGM-111 Gas Engine Rebuild

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.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Course Type: Technical

## AGM-119 Hydraulics I

This course covers theory and symbols of hydraulic components. Testing and repair of components is performed according to manufacturers' specifications.

Credit Hours: 4 Lecture Hours: 16 Lab Hours: 96

Prerequisite(s): Minimum grade of C- in AGM-124.

Course Type: Technical

## AGM-124 Technical Procedures for Power Mechanics Techs

Identifies the general knowledge and procedures used by power technicians. Covers tool selection, general shop safety, fire safety and forklift operation.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Course Type: Technical

## AGM-126 Diesel Engine Sub Systems

A study of diesel fuel systems, air intake systems, cooling systems and exhaust systems.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Prerequisite(s): Must be an Electronic Engineering Technology with a Mechanical Emphasis student. Minimum grade of D- in EGT-144.

Course Type: Technical

## AGM-128 Fundamentals of Diesel Engine

Students are introduced to diesel engine application, design, construction, theory and operating principles of diesel engines. This course also covers diagnosis, disassembly, and assembly of diesel engines.

Credit Hours: 5 Lecture Hours: 16 Lab Hours: 128

Prerequisite(s): Must be an Electronic Engineering Technology with a Mechanical Emphasis student. Minimum grade of D- in EGT-144.

Course Type: Technical

## AGM-142 Diesel Power Transfer Systems

Students are introduced to application, design, construction, theory and operating principles of transmission, differentials and final drives.

Credit Hours: 4 Lecture Hours: 16 Lab Hours: 96

Prerequisite(s): Must be an Electronic Engineering Technology with a Mechanical Emphasis student. Minimum grade of D- in EGT-144.

Course Type: Technical

## AGM-224 Hydraulics II

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.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Prerequisite(s): Minimum grade of C- in AGM-333.

Pre/Co-requisite(s): Minimum grade of C- in AGM-119.

Course Type: Technical

## AGM-333 Electronics

This course is a continuing study of electricity in electronic components covering circuitry, diagnosis, and repair.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Prerequisite(s): Minimum grade of C- in AGM-124.

Pre/Co-requisite(s): Minimum grade of C- in AGM-104.

Course Type: Technical

## AGM-401 Ag Power Transfer Systems

A study of the Ag 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.

Credit Hours: 4 Lecture Hours: 16 Lab Hours: 96

Prerequisite(s): Minimum grade of C- in AGM-119, AGM-104, AGM-124, AGM-333, and AGM-224.

Course Type: Technical

## AGM-402 Equipment Repair II

This course is designed to give students the opportunity to apply competencies previously achieved to repair and service projects.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Pre/Co-requisite(s): Minimum grade of C- in AGM-401 and DSL-404

Course Type: Technical

# AGP: Agriculture — Precision Ag

## AGP-333 Precision Farming Systems

Provides an overview of precision farming concepts and the tools of precision farming (GPS, GIS and VRT). Introduces the use of each of these tools within the processes of a precision farming system. Provides hands-on activities in the use of these tools. Discusses economic and environmental benefits.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## AGP-340 Foundations of GIS and GPS

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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## AGP-436 Advanced Precision Farming: Hardware

Examine the installation, operation, and troubleshooting of precision farming hardware components. Install equipment and various components used within precision agriculture and operate various precision agriculture hardware systems and technologies. Trouble shoot and diagnose various problems on precision hardware technologies. Justify and examine the cost and benefits of various precision hardware technologies.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## AGP-450 Fundamentals of GIS

Fundamental processes of Geographic Information Systems (GIS) with emphasis in its application to agriculture will be covered. File formats, data base 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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

# AGS: Agriculture — Science, Animal

## AGS-113 Survey of the Animal Industry

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 and marketing of farm animals, composition, evaluation and marketing of farm animals, composition, evaluation and marketing of animal products; including beef and dairy cattle, horses, goats, poultry, sheep and swine.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## AGS-211 Issues Facing Animal Science

Overview of the factors that define contemporary ethical and scientifically based issues facing the animal industry.

Credit Hours: 2 Lecture Hours: 32

Course Type: Technical

## AGS-216 Equine Science

This course presents the basic management and production practices for horses including nutrition, health care, reproductive management, facilities and evaluation.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## AGS-218 Domestic Animal Physiology

Introduction to the functional anatomy and physiological activities governing the animal body; including cells, senses, nerves, skeletal, circulatory, respiratory, digestive, urinary, muscular, reproductive, and endocrinology.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Prerequisite(s): Minimum grade of D- in AGS-113.

Course Type: Technical

## AGS-225 Swine Science

Introduces principles, practices, and decisions impacting swine production.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## AGS-226 Beef Cattle Science

This course will introduce the principles, practices, and decisions impacting beef cattle production.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## AGS-272 Foods of Animal Origin

An introduction to contemporary practices in the meat industry with a focus on production, processing and preservation of safe, wholesome, nutritious and palatable animal derived products.

Credit Hours: 5 Lecture Hours: 64 Lab Hours: 32

Prerequisite(s): Minimum grade of D- in AGS-113.

Course Type: Technical

## AGS-275 Food Safety and Analysis

An introduction to food quality control/assurance and establishment of decision-making processes, looking at potential hazards in the food system along with ways to ensure safety of products. The 3 modules of this course will be 1) Food hazards 2) HACCP (Hazard Analysis Critical Control Points) and 3) Analysis for potential contamination.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## AGS-305 Livestock Evaluation

This course develops the student's potential in livestock selection with emphasis placed on the evaluation of breeding animal as well as market animals.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## AGS-319 Animal Nutrition

Examines the nutritional principles, digestive systems, composition, and nutritional characteristics of common feedstuffs, ration formulation, and recommended animal feeding programs.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## AGS-924 Honors Project

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. This course can be repeated with different content for credit.

May be taken for up to 3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

# AGT: Agriculture — Technology

## AGT-700 Special Topics: Agriculture Education

This course is designed for career and technical education professionals to develop and enhance knowledge and skills in specific emerging practices, issues, and technical content areas in the broad industry of agriculture.

Credit Hours: 1 Lecture Hours: 16

Course Type: Technical

## AGT-805 Employment Experience

This course provides students with opportunities to gain on-the-job experience in the agriculture, natural resource or horticulture industries. Students will gain an understanding of qualities and skills needed for success. Coordination and guidance will be provided by department instructors.

Credit Hours: 5 Co-op Hours: 320

Course Type: Technical

## AGT-928 Independent Study

This course provides students with an opportunity to pursue or investigate a topic of interest that does not fit within the framework of regular course offerings. An independent study self-directed learning agreement must be discussed with and submitted to a faculty advisor prior to registration. This course may be repeated for credit with different content.

May be taken for up to 5 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: Technical

# AGV: Agriculture — Vet Technology

## AGV-101 Veterinary Assisting

This is a capstone course that will provide students with the necessary skills and competencies that are needed to successfully perform the duties of a veterinary assistant.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D- in AGV-154 or instructor approval.

Course Type: Technical

## AGV-121 Veterinary Medical Terminology

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.

Credit Hours: 2 Lecture Hours: 32

Course Type: Technical

## AGV-123 Companion Animal

This course provides an understanding of the basic principles of anatomy and physiology and health of companion animals. Additionally, the course will offer insight into social behavior and relationships.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## AGV-140 Veterinary Pharmacology

This class introduces the student to small animal pharmaceuticals. Learning is centered on the use, dosage, administration, handling, and storage of commonly used drugs used in small and large animal veterinary practices.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D- in AGS-218.

Course Type: Technical

## AGV-154 Veterinary Reception and Administration Skills

This course will cover all aspects of record keeping, reception, and administration skills required in a veterinary hospital. Furthermore, students will become familiarized with a computer software used in a veterinary practice.

Credit Hours: 4 Lecture Hours: 64

Course Type: Technical

# ART: Art

## ART-101 Art Appreciation

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## ART-120 2-D Design

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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: General Education / Transfer

## ART-123 3-D Design

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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: General Education / Transfer

## ART-133 Drawing

This course concentrates on fundamental 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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: General Education / Transfer

## ART-134 Drawing II

This course concentrates on more advanced drawing problems: gesture, contour,proportions,mapping techniques and value are studied through the use of props and clothed models addressed in Drawing 1. The focus will be more creative interpretation with various media and approaches.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: General Education / Transfer

## ART-143 Painting

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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: General Education / Transfer

## ART-144 Painting II

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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): ART-143, or equivalent, or instructor approval.

Course Type: General Education / Transfer

## ART-173 Ceramics

A hands-on intensive introduction to clay and glaze materials, integrated with a fresh approach to building interesting forms effectively.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: General Education / Transfer

## ART-174 Ceramics II

This course develops the methods of clay forming as a means of expression. Topics may include hand building, wheel-throwing, glazing, design and the functional and aesthetic aspects of ceramics. Upon completion, students should demonstrate improved craftsmanship and aesthetic quality in the production of ceramic art.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D- in ART-173.

Course Type: General Education / Transfer

## ART-184 Photography

This course provides an introduction to the basics of digital photography, from camera selection to its use as an art form and aesthetic medium. Content includes camera types, lenses, exposure controls, elements of composition, editing fundamentals, and the storage, printing and sharing of photographic images. It will also examine the elements of photographic theory, history and ethics. In this hands-on class, students will complete specific technique-based assignments and participate in class demonstrations, discussions and critiques.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: General Education / Transfer

## ART-203 Art History I

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## ART-204 Art History II

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## ART-924 Honors Project

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. This class may be taken for up to 3 credits.

May be taken for up to 3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## ART-928 Independent Study

This course provides students with an opportunity to explore a topic, medium, or project of interest that is outside the regular course offerings. Faculty consultation is required prior to registration for this course. This course can be repeated with different content for credit. This course can be taken for 1–5 credit hours.

May be taken for up to 5 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## ART-949 Special Topics

Special Topics expands the curriculum by allowing students to enroll for up to three credits in a specific course or program area. Subject matter may be an in-depth extension of the particular area and is developed by the teaching faculty to meet unique interests and needs of the students. This course may not duplicate another one already in the catalog. This course may be repeated for credit with different content. This course can be taken for 1–3.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## ART-999 Study Abroad

This course explores relative differences between the student's country and another country with emphasis in discipline of study. Topics include history, geography, culture, food, language, and discipline specific topics. This course can be repeated with different content for credit. This course can be taken for up to 5 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

# ASL: American Sign Language

## ASL-131 American Sign Language I

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

# ATR: Automation Technology and Robotics

## ATR-145 Applied Industrial Robotics

This course will introduce the study of industrial robots. This hands-on course will equip students with the skills for the installation, programming, and troubleshooting of industrial robots.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Course Type: Technical

# AUT: Automotive Technology

## AUT-106 Introduction to Automotive Technology

This introductory course provides an introduction to the many facets of the automotive industry to include: careers in the automotive industry, environmental concerns affecting the automotive industry, basic automotive hand tools, specialty tools, precision measuring tools, power tools and shop equipment, using service and shop manuals, and shop safety.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Course Type: Technical

## AUT-109 Introduction to Automotive Technology II

This course includes the use of hand and power tools, the understanding of electronic repair information and the importance of preventative maintenance.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Course Type: Technical

## AUT-164 Automotive Engine Repair

Basic theory of two-cycle and four-cycle gasoline engines and their application will be introduced. Disassembly, inspection and reassembly of an engine will be experienced as well as cooling, lubrication, induction, exhaust, compression and valve systems discussed. Students will develop competencies in precision measuring and services procedures.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Course Type: Technical

## AUT-204 Automotive Automatic Transmissions and Transaxles

This course covers the advanced study of automatic transmission theory and service. The student will review basic automatic transmission theory. The student will study diagnosis, disassembly, inspection, and assembly of different types of automatic transmissions and trans-axles.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Course Type: Technical

## AUT-307 Automotive Manual Transmissions and Transaxles

A comprehensive study of the Manual Transmissions/Transaxle components and their relationship to the application of power to the drive wheels of vehicles.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Course Type: Technical

## AUT-315 Automotive Differentials and 4-Wheel Drive

A comprehensive study of Differentials and Transfer Cases and their relationship to the application of power to the drive wheels of vehicles.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Course Type: Technical

## AUT-404 Automotive Suspension and Steering

Steering and suspension system operation and service procedures are covered. Emphasis is on diagnosis and repair procedures.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Course Type: Technical

## AUT-504 Automotive Brake Systems

Instruction in the theory and operating principles of drum, disc, hydraulic, and anti-lock brake systems. Laboratory procedures for inspecting, testing, diagnosing, repairing, and/or replacing conventional, power brake system components.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Course Type: Technical

## AUT-537 Automotive Advanced Brake Systems

This course explains antilock brake systems. It also covers the diagnosis and repair of this system, as well as traction and stability control.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Course Type: Technical

## AUT-610 Automotive Electrical I

This introductory course covers basic electronic theory and utilization of electrical measuring instruments. Emphasis will be placed on the application of Ohm’s Law and the proper utilization of electronic test equipment including practice with equipment and circuits.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Course Type: Technical

## AUT-631 Automotive Electronics

This course includes the theory of automotive electronics, communication of automotive electronics and repair of electronic systems.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Course Type: Technical

## AUT-643 Auto Starting, Charging, and Electrical

This course includes automotive electrical theory, electrical components, component operation, testing and repair procedures for automotive charging, starting and electrical systems.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Course Type: Technical

## AUT-704 Automotive Heating and Air Conditioning

This course will provide instruction in the theory of operation of auto air conditioning and heating systems. Students will learn how to diagnose and service auto air conditioning systems and heating systems.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Course Type: Technical

## AUT-827 Automotive Ignition Systems

Operation, diagnosis, and repair procedures used to service the modern automotive ignition system.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Prerequisite(s): Minimum grade of D- in AUT-842.

Course Type: Technical

## AUT-834 Automotive Fuel Systems

This course will provide the instruction to introduce the student to basic fuel system principles. Students will study theory and will gain hands-on experience by cleaning, repairing, and adjusting automotive fuel systems.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Course Type: Technical

## AUT-842 Automotive Computerized Engine Controls

This course builds upon the knowledge and skills learned in previous automotive courses to prepare the student to service On-Board Diagnosis 2 computer-controlled vehicles. The theory and operating principles of automotive computers, sensors and control devices will be emphasized. Lab instruction on late model cars will be included.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Course Type: Technical

## AUT-886 Comprehensive Application

Students are presented with diagnostic problems and repair projects. Competencies attained in prior classes are emphasized.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Prerequisite(s): Minimum grade of D- in AUT-106, AUT-109, AUT-164, AUT-610, AUT-504, AUT-643, and AUT-307.

Course Type: Technical

# BCA: Business Computer Application

## BCA-132 Electronic Communications

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## BCA-183 Basic Web Design Software

This course will show students how to use a web authoring software to enhance and manage professional quality web sites. Students will create a web site containing multimedia elements, publish it, and maintain it.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Prerequisite(s): WDV-102.

Course Type: Technical

## BCA-213 Intermediate Computer Business Applications

This course covers advanced computer applications including word processing, spreadsheet, database, and presentation software. Topics include using mail merge, desktop publishing, using database functions in a spreadsheet, templates, creating customized reports and forms in database, advanced features of presentation software, importing and exporting data.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of C- in CSC-110 or CSC-116.

Course Type: Technical

## BCA-924 Honors Project

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. This course can be repeated with different content for credit.

May be taken for up to 3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

# BIO: Biology

## BIO-105 Introductory Biology

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.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Course Type: General Education / Transfer

## BIO-112 General Biology I

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.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Course Type: General Education / Transfer

## BIO-113 General Biology II

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.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Course Type: General Education / Transfer

## BIO-151 Nutrition

Principles of Nutrition 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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## BIO-154 Human Biology

Human Biology 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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## BIO-163 Essentials of Anatomy and Physiology

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. Each student must enroll for one laboratory section.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Course Type: General Education / Transfer

## BIO-166 Fundamentals of Anatomy and Physiology

This introductory course provides an overview of basic anatomy and physiology of all body systems. It is designed primarily for the non-professional majors as an introductory course. Laboratory includes microscopy, the study of human anatomy, computer simulations, preserved specimens and the study of physiological processes.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Course Type: General Education / Transfer

## BIO-168 Human Anatomy and Physiology I

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.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Course Type: General Education / Transfer

## BIO-173 Human Anatomy and Physiology II

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.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in BIO-168.

Course Type: General Education / Transfer

## BIO-186 Microbiology

Morphology, physiology, taxonomy, and relationship of microorganisms to disease. In-depth laboratory study and suitable lecture material with applications to agriculture, industry, and medicine.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Course Type: General Education / Transfer

## BIO-269 Foodology

This course explores the physical, biological, and chemical study of food and examines food science by presenting topics relevant to the modern day diet. Topics will include food processing, food distribution, organic foods, genetically modified foods, macro and micronutrients, and the obesity epidemic.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## BIO-924 Honors Project

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. This course can be repeated with different content for credit. This course can be taken for 1–3 credit hours.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## BIO-928 Independent Study

This course provides opportunity for a student to focus previous course work and knowledge on a special issue as well as provide for individualized exploration of topics germane to the student's projected objectives within any recognized discipline. Faculty consultation is required prior to registration for this course. This course can be repeated with different content for credit.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## BIO-949 Special Topics

Special Topics expands the curriculum by allowing students to enroll for up to three credits in a specific course or program area. Subject matter may be an in-depth extension of the particular area and is developed by the teaching faculty to meet unique interests and needs of the students. This course may not duplicate another one already in the catalog. This course may be repeated for credit with different content. This course can be taken for 1–3.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

# BUS: Business

## BUS-102 Introduction to Business

An introductory survey course which provides an overview of the major functions in business with relation to current social, economic, global, and environmental concerns.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## BUS-108 Business College Experience

This course is designed to orient technical business students to the college campus, business and general resources, college services, and expectations. This course will provide an introduction to career portfolios and certifications

Credit Hours: 1 Lecture Hours: 16

Course Type: Technical

## BUS-128 Foundation to Entrepreneurship

This course is suitable for anyone who dreams of one day becoming his/her own boss. Students will learn how to identify and evaluate opportunities, analyze feasibility, and plan to create and grow successful businesses. The course provides an overview of entrepreneurship and its importance in society and inspires students to recognize entrepreneurial characteristics within themselves.

Credit Hours: 3 Lecture Hours: 32

Course Type: Technical

## BUS-180 Business Ethics

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## BUS-183 Business Law

An introduction to the principles of law as they relate to business. This course includes an overview of our court system, sources of law, ethics and social responsibility, contracts, warranties, real property, landlord and tenant, negotiable instruments, and agency. Emphasis is placed on exploring the law as it affects businesses and individuals.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## BUS-210 Business Statistics

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.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): MAT-156 or equivalent or appropriate placement score.

Course Type: General Education / Transfer

## BUS-220 Introduction to International Business

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## BUS-230 Quantitative Methods for Business Decision Making

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.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): MAT-156.

Course Type: General Education / Transfer

## BUS-295 Workplace Professionalism

This course is designed to prepare students to enter the workplace with the skills required in a professional setting. This course will cover workplace behaviors such as communicating in a professional manner, conflict resolution, accountability, and business etiquette. This course will also cover career development skills.

Credit Hours: 2 Lecture Hours: 32

Course Type: Technical

## BUS-903 Business Field Experience

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.

Credit Hours: 3 Co-op Hours: 192

Prerequisite(s): 2.00 cumulative GPA

Course Type: Technical

## BUS-924 Honors Project

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. This course can be repeated with different content for credit. This course may be taken for 1–3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## BUS-928 Independent Study

This course provides students with an opportunity to pursue or investigate a topic of interest that does not fit within the framework of regular course offerings. An independent study self-directed learning agreement must be discussed with and submitted to a faculty advisor prior to registration. This course may be repeated for credit with different content. Course can be taken for 1–3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## BUS-949 Special Topics

Special Topics expands the curriculum by allowing students to enroll for up to three credits in a specific course or program area. Subject matter may be an in-depth extension of the particular area and is developed by the teaching faculty to meet unique interests and needs of the students. This course may not duplicate another one already in the catalog. This course may be repeated for credit with different content. This course can be taken for 1–3.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

# CAD: Computer Aided Drafting

## CAD-118 Technical Drawing and CAD

This course will introduce hands-on technical drawing and computer-aided drafting and design. Basic drawing tools and computer hardware, software and file management will be discussed. Basic manual drawing and two-dimensional engineering CAD drawing creation will be covered. Various editing techniques in CAD will be examined. Manual drawings will be created; CAD drawings will be created, edited and plotted.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Pre/Co-requisite(s): A minimum grade of D- in CSC-110, or EGT-108, or EGT-410. For non-majors, a student with basic computer proficiency can be enrolled with instructor consent.

Course Type: Technical

## CAD-200 CAD SoftPlan

The CAD SoftPlan course will introduce students to an object-based CAD program and the process involved in generating a complete set of residential working drawings. Emphasis will be placed on setting up a drawing, using file management, organizing architectural information, paying attention to detail, converting sketches to CAD, modifying CAD drawings, and applying problem solving skills.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in CON-102.

Course Type: Technical

## CAD-208 SoftPlan 2

The Softplan 2 Course will introduce students to advanced Softplan skills involved in generating a complete set of residential working drawings. Emphasis will be placed on advance organization of architectural information, attention to detail, modifying CAD drawings, and applying problem-solving skills.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in CAD-200.

Course Type: Technical

# CET: Civil Engineering Technology

## CET-123 Constr Drawings and Cont

The course examines typical building and civil construction (highway) plans and introduces the methods of bidding and contracting for various types of building projects.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Non-majors may enroll with instructor consent.

Course Type: Technical

## CET-133 Construction Methods and Resources

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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Pre/Co-requisite(s): A minimum grade of D- in MAT-741 or MAT-121.

Course Type: Technical

## CET-142 PC Concrete, HMA, and Testing

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.

Instructor consent if not in program major.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Course Type: Technical

## CET-160 Surveying

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.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Pre/Co-requisite(s): A minimum grade of D- in MAT-741 or MAT-121 or instructor consent.

Course Type: Technical

## CET-183 Structural Detailing and Civil Drafting

Structural Detailing uses computer-aided drafting (CAD) techniques to prepare drawings for sites and highway structures which include structural steel, reinforced concrete and structural timber. Course introduces the preparation of bar bend details, reinforcing bar lists, and quantity calculations for various types of projects. Topics from the Department of Transportation Highway and Bridge Standard Specifications are also covered.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D- in CAD-118 or instructor consent.

Course Type: Technical

## CET-213 Route Surveying/Roadway Design

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.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Prerequisite(s): Minimum grade of D- in CET-160.

Course Type: Technical

## CET-223 Soils, Testing, and Foundations

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.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Pre/Co-requisite(s): A minimum grade of D- in MAT-741 or MAT-121.

Course Type: Technical

## CET-233 Fundamentals of GPS and GIS

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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D- in MAT-741 or MAT-121.

Course Type: Technical

## CET-253 Fundamentals of Construction Estimating

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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Pre/Co-requisite(s): Minimum grade of D- in MAT-063 or MAT-060. Or equivalent placement score.

Course Type: Technical

## CET-256 Land Surveying

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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D- in CET-160.

Course Type: Technical

## CET-262 Environmental Technology

Topics covered include hydraulics, hydrology, water quality, water and sewer systems, storm water control, solid and hazardous waste, and air and noise pollution.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D- in MAT-121 or MAT-741.

Course Type: Technical

## CET-285 Structural Steel/Reinforced Concrete Design

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.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Prerequisite(s): EGT-243

Course Type: Technical

## CET-296 Site Planning and Development

The course will examine procedures for developing site plans for main types of construction projects. Various aspects of the development of a job site will be examined by considering feasibility studies, zoning requirements, site survey and design, required permits and other pertinent information. The general outline of the policies used by local municipalities will be used as examples.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D- in CAD-118, and EGT-460, and CET-123.

Pre/Co-requisite(s): A minimum grade of D- in CET-213 and CET-262.

Course Type: Technical

# CHM: Chemistry

## CHM-122 Introduction to General Chemistry

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. Elementary algebra is required as a prerequisite.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in MAT-063 or MAT-060. Or equivalent placement score.

Course Type: General Education / Transfer

## CHM-132 Introduction to Organic and Biochemistry

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.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Prerequisite(s): CHM-122

Course Type: General Education / Transfer

## CHM-165 General Chemistry I

This lecture and laboratory course is the first of a two-semester sequence designed specifically for students majoring in chemistry, physics, biology, or pre-engineering. It is a mathematically rigorous course that assumes the entering student has a strong background in algebra and finite mathematics. Students will learn specific-content chemical information that will be applied within the context of a variety of chemistry applications. Many of the applications that will be investigated highlight contemporary social and scientific issues. Through participation in course activities, each student should expect to improve her/his knowledge of chemistry and to develop improved qualitative and quantitative problem-solving skills. Hands-on experience with laboratory experiments will allow students to learn proper procedures, to gather meaningful data, and to draw logical and appropriate conclusions based on the laboratory data. Content will include chemical equations, stoichiometry, gases, thermochemistry, equilibrium, electronic structure of atoms, periodic trends, molecular bonding and structure, intermolecular forces, and nuclear chemistry.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Prerequisite(s): A minimum grade of C- in MAT-102, or MAT-110, or MAT-156.

Course Type: General Education / Transfer

## CHM-175 General Chemistry II

This lecture and laboratory course is the second of a two semester sequence designed specifically for students majoring in chemistry, physics, biology or pre-engineering. Students will have successfully completed General Chemistry I or its' equivalent. The course focuses on chemical equilibria and their applications, thermodynamics, kinetics, modern materials, electrochemistry, properties of solutions, chemistry of the representative main group and transition elements, coordination compounds, basic organic chemistry, biological chemistry, and chemistry of the environment. 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.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Prerequisite(s): CHM-165

Course Type: General Education / Transfer

## CHM-260 Organic Chemistry I

Theory and practice of organic chemistry with emphasis on the chemistry of functional groups, structure, bonding, molecular properties, reactivity and nomenclature of alkanes, alkenes, alcohols and ethers, stereochemistry, reaction mechanism, nucleophilic substitution and elimination reactions.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of C- in CHM-165 and CHM-175.

Course Type: General Education / Transfer

## CHM-270 Organic Chemistry II

Theory and practice of organic chemistry with emphasis on nomenclature and reactivity of alkenes, alkynes, aromatics, aldehydes, ketones, carboxylic acids and their derivatives, amines, and polyfunctional compounds.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of C- in CHM-260 or equivalent.

Course Type: General Education / Transfer

## CHM-924 Honors Project

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. This course can be repeated with different content for credit.

May be taken for up to 3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## CHM-928 Independent Study

This course provides students with an opportunity to pursue or investigate a topic of interest that does not fit within the framework of regular course offerings. An independent study self-directed learning agreement must be discussed with and submitted to a faculty advisor prior to registration. This course may be repeated for credit with different content.

May be taken for up to 5 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

# CHM-949 Special Topics

Special Topics expands the curriculum by allowing students to enroll for up to three credits in a specific course or program area. Subject matter may be an in-depth extension of the particular area and is developed by the teaching faculty to meet unique interests and needs of the students. This course may not duplicate another one already in the catalog. This course may be repeated for credit with different content. This course can be taken for 1–3.

Credit Hours: 1  Lecture Hours: 16

Course Type: General Education / Transfer

# CIS: Computer Programming

## CIS-102 Introduction to Computers

This course introduces the basic use of the personal computer. The course includes a study of DOS (disk operating system), Windows, and word processing.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Course Type: Technical

## CIS-121 Introduction to Programming Logic

This course will introduce language independent programming logic design techniques. Students will learn techniques such as flow-charting and pseudo-code to build complete programs that can be translated into modern programming languages. Students will learn to use elements of decision making, looping, control breaks, and arrays. Language independent Object Oriented Programming will be introduced along with other advanced topics.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## CIS-152 Data Structures

This course provides a strong foundation in commonly used data structures, including collections, linked lists, stacks, queues, trees, maps and heaps, etc. Students will use an object-oriented programming language to design, write, and test medium-sized programs that implement data structures.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in CIS-121.

Course Type: Technical

## CIS-169 C#

This course is an introduction to the C# language. Object-oriented programs will be developed by students.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in CIS-121.

Course Type: Technical

## CIS-174 Advanced C# Programming

Students learn ASP.NET development with C# and relational database management systems and build dynamic websites, web applications and XML web services. The course includes advanced topics, such as state preservation techniques and object-oriented programming. After completing the course, students will be able to use C# and ASP.NET to build professional-quality database-driven websites.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Pre/Co-requisite(s): Minimum grade of C- in CIS-169.

Course Type: Technical

## CIS-184 Programming Algorithms

This course surveys computer algorithms every programmer should know. This course will also explore common design patterns.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in CIS-217 and CIS-225.

Course Type: Technical

## CIS-206 Web Scripting

This course is designed to give students experience in creating dynamic web sites. Students will use JavaScript to add interactivity to web sites. Students will explore the Document Object Model as well as other advanced techniques.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in CIS-121, or CIS-215, or CIS-231.

Course Type: Technical

## CIS-215 Server Side Web Programming

This course is designed to give the student the tools and the knowledge to program web applications using the web programming language ASP.NET C# as a server side language. This course goes over the syntax and usage of the language. This course will introduce the basics of web applications.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in WDV-102 and CIS-121.

Course Type: Technical

## CIS-217 Data Driven Web Page

This course is designed to give the student the tools and the knowledge to program a web application using PHP and MySQL. This course covers advanced topics such as administration pages for the web site for the management of the web application. This course is a continuation of CIS-231 PHP Programming.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in CIS-231.

Course Type: Technical

## CIS-225 Advanced Server Side Web Programming

This course will build on the skills learned from Server Side Web Programming. This course will work with advanced topics in Active Server Pages. Students will be expected to create entire web sites using information learned in this course. A practical hands-on approach will be utilized.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D in CIS-215.

Course Type: Technical

## CIS-231 PHP Programming

This course is designed to give the student the tools and the knowledge to program using the web programming language PHP as a server side language. This course goes over the syntax and usage of the language. This course will introduce the basics of web applications.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in WDV-102, and CIS-121, and CIS-355.

Course Type: Technical

## CIS-234 Web Site Administration

This course is designed to introduce students to the various platforms that support the servicing web sites. Students will understand HTTP, FTP and SMTP and configure the services. Students will also host and maintain several websites on a server.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in WDV-102 and CIS-231.

Course Type: Technical

## CIS-249 Web Languages

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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in CIS-121 and WDV-102.

Course Type: Technical

## CIS-274 E-Commerce Design

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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in CIS-231.

Course Type: Technical

## CIS-303 Introduction to Database

This course will introduce students to data management using databases. Multiple DBMS’s will be discussed and utilized to experience similarities and differences. SQL language will be used to create databases, populate tables and query data.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## CIS-355 Database Design and Management

This course will introduce students to data management using databases. this includes database design, normalization/optimization, relationships, security, and database management systems.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Course Type: Technical

## CIS-364 Game Development I

This course delves into the development of games from idea to prototype to a first stage functional game. A variety of platforms will be explored.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in CIS-215 and CIS-121.

Course Type: Technical

## CIS-440 PLTW—Computer Science Essentials

With emphasis on computational thinking and collaboration, this course provides an excellent entry point for students to begin or continue the PLTW Computer Science experience. This course will expose students to a diverse set of computational thinking concepts, fundamentals, and tools, allowing them to gain understanding and build confidence. Students will use visual, block-based programming and seamlessly transition to text-based programming with computer languages to create apps and develop websites, and learn how to make computers work together to put their design into practice. Students will apply computational thinking practices, build their vocabulary, and collaborate just as computing professionals do to create products that address topics and problems important to them.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64 Clinic Hours: 0 Co-op Hours: 0

Course Type: Technical

## CIS-450 PLTW—Computer Science Principles

This course implements the College Board's CS Principles framework. Incorporating multiple platforms and languages for computation, this course aims to develop computational thinking, generate excitement about career paths that utilize computing, and introduce professional tools that foster creativity and collaboration. Projects and problems include app development, visualization of data, cybersecurity, and simulation. The course aligns with CSTA 3B standards.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Course Type: Technical

## CIS-504 Structured Systems Analysis

Course will provide student knowledge in the complete process of systems analysis and design and the steps involved. Actual systems analysis and design lab practices will measure student's understanding. Concepts in Project Management will also be covered.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## CIS-604 Visual Basic

This class will introduce students to creating programs using the Visual Basic language. Students will gain experience in creating applications automating processes using Visual Basic.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## CIS-750 Project Management

This course provides students exposure to project management and its importance to successful Information Technology project implementation. Topics include the triple constraints of project management, project life cycle, cost estimates, motivation theory and team building. Tools and techniques important to project management will also be presented including project selection methods, proposal and planning documents, work breakdowns, network diagrams and critical path analysis.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of C- in NET-313 and NET-213.

Course Type: Technical

# CLS: Cultural Studies

## CLS-130 African Cultures

This course will explore the development of Sub-Saharan African civilizations from the dawn of humanity to the issues facing the continent today. The first part of the course will look at the indigenous and colonial heritage of Africa. The second part will examine selected aspects of the political, economic, social, religious, environmental, and gender issues and realities facing Africa today. Lastly, it will expose students to significant African contributions and trends in the Fine Arts: literature, cinema, music, and the visual arts.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## CLS-141 Middle Eastern History and Culture

This interdisciplinary course will examine the history of the Middle East with particular emphasis on the period since the birth of Islam. The course will also explore the cross-cultural exchanges that ancient Middle Eastern and Islamic civilizations have engaged in with other world civilizations. Among the topics covered in this course are the foundation and development of Islam, the cultural influence and spread of Islamic civilization, the creation and politics of modern nation-states, and emergence of Islamist politics.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## CLS-150 Latin American History and Culture

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## CLS-160 East Asian Cultures

East Asian Cultures 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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## CLS-164 Japanese History and Culture

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## CLS-172 Russian Civilization

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## CLS-924 Honors Project

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. This course can be repeated with different content for credit.

May be taken for up to 3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## CLS-928 Independent Study

This course provides students with an opportunity to pursue or investigate a topic of interest that does not fit within the framework of regular course offerings. An independent study self-directed learning agreement must be discussed with and submitted to a faculty advisor prior to registration. This course may be repeated for credit with different content.

Can be taken for up to 5 credit hours.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

# CNS: Conservation Technology

## CNS-104 Outdoor Recreation II

This course provides an introduction into basic outdoor recreation certifications. The course will provide a way for students to learn about boating safety, first aid, and CPR and gain certification necessary for employment. The course will provide background in the principles of Leave No Trace which are essential for wilderness camping. Additionally, the course will provide an examination of the Fish Iowa curriculum for students to share with others as they progress in their careers.

Credit Hours: 1 Lab Hours: 32

Prerequisite(s): Minimum grade of D- in RDG-038.

Course Type: Technical

## CNS-107 Outdoor Recreation Techniques

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, and backpacking.

Credit Hours: 1 Lab Hours: 32

Course Type: Technical

## CNS-108 Wildlife Identification

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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## CNS-109 Wildlife Ecology

This course focuses on the application of wildlife ecology and management techniques. It studies censuring, capture and marking of wildlife. The course includes habitat evaluation, habitat restoration, Iowa game laws, life history studies and the application of wildlife management principles as they relate to important ecological and recreational resources.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D- in CNS-121.

Course Type: Technical

## CNS-110 Equipment Operation and Safety

Equipment Operation and Safety focuses on the operation, maintenance, personal protective equipment, and safety of equipment used in the natural resources field. Labs include the use of equipment ranging from small engines to equipment used for prairie restoration, timber stand improvement, aquatic management, and park management.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Course Type: Technical

## CNS-121 Environmental Conservation

Environmental Conservation is a course that enables students to learn about their environment. Students study about natural ecosystems, interactions within ecosystems, ecological principles and their application, the impact our increasing population has on the environment, the importance and components of a sustainable agriculture, and the environmental issues facing today's world.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## CNS-134 Wildlife Management

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.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Prerequisite(s): Minimum grade of D- in CNS-121.

Co-requisite(s): CNS-109

Course Type: Technical

## CNS-136 Aquatic Management

This course introduces aquatic conservation and management. Basic background on aquatic environments, the ecology of fish, and the characteristics of humans who utilize aquatic resources or indirectly interact with them through land- and water-use activities will be covered.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D- in CNS-121.

Course Type: Technical

## CNS-138 Woodland Management

This course will provide an introduction to woodland management from an ecological management perspective. Management of small properties will be emphasized.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## CNS-143 Fire Management

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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): CNS-121

Course Type: Technical

## CNS-180 Principles of Interpretation

This course covers the history, objectives, forms, and techniques of interpretation in the settings of county, state, national parks, and zoos. The course will explore the principles of effective communication as they apply to natural resource fields. Conceptual principles for planning interpretive programs and use of effective communication in multi-media delivery systems in outreach campaigns to manage and conserve natural resources are discussed. This course helps students gain the technical competencies of interpretation professionals by presenting and observing nature walks, giving public presentations, creating displays, writing news releases, and taking photographs as interpretative exercises. Students will have the opportunity to complete the National Certified Interpretative Guide exam.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Pre/Co-requisite(s): A minimum grade of D- in CNS-121.

Course Type: Technical

## CNS-200 Conservation Biology

Conservation Biology draws together scientists and environmentalists in basic and applied studies of biodiversity. The course 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 course will examine biodiversity in detail, evaluate the threats to biodiversity, and examine the processes of extinction that are leading to a biodiversity crisis. Students will be active participants in current conservation projects and will conduct studies of the biological diversity of their community.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D- in CNS-121.

Course Type: Technical

## CNS-204 Native Vegetation

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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## CNS-205 Advanced Outdoor Recreation Techniques

This course provides a wilderness experience to utilize advanced outdoor recreation techniques during an intense time period (over Labor Day weekend or the equivalent). Techniques utilized include hiking, backpacking, canoeing or kayaking, low impact camping, and others. This wilderness encounter is at a remote location such as the Boundary Waters, Isle Royale, etc. The focus of this experience is to gain leadership skills to guide groups of citizens on basic outdoor recreation adventures to increase their appreciation of their environment such as is done by naturalists and conservation groups by following the 18 points set by the Wilderness Education Association and Leave No Trace Principles. This course can be repeated with different content for credit.

Credit Hours: 1 Lab Hours: 32

Prerequisite(s): CNS-107

Course Type: Technical

## CNS-228 Natural Areas Management

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.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Course Type: Technical

# COM: Communication

## COM-140 Introduction to Mass Media

Introduction to Mass Media 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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## COM-143 Media Messages: Printed Page

Media Messages: Printed Page 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, COM-144, and COM-147 may equate to a 3 credit media literacy course at other institutions.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## COM-144 Media Messages: TV and Movies

Media Messages: TV and Movies 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, COM-144, and COM-147 may equate to a 3 credit media literacy course at other institutions.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## COM-147 Media Messages: World Wide Web

Media Messages: Examining the World Wide Web 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, COM-144, and COM-147 may equate to a 3 credit media literacy course at other institutions.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## COM-148 Diversity and the Media

Diversity and the Media presents a historical perspective and current analysis of various minority groups and how the media depicts 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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## COM-151 ETC: Art and Literary Magazine

This course will teach students to produce the annual art and literary magazine, ETC, at Hawkeye Community College. Visual and editorial content will be developed based on themes connected to the institution's "Common Read" book, adopted each academic year.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## COM-152 ETC: Art and Literary Magazine

This course will teach students to produce the annual art and literary magazine, ETC, at Hawkeye Community College. Visual and editorial content will be developed based on themes connected to the institution's "Common Read" book, adopted each academic year.

Credit Hours: 2 Lecture Hours: 32

Course Type: General Education / Transfer

## COM-155 Newspaper Production

Newspaper Production 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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## COM-730 Communications

This course presents elements of professional verbal and written communication. In this course, students will go through the real world hypothetical process of locating and applying for a job, then practicing communication skills needed while at work.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## COM-763 Introduction to Professional Writing

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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): ENG-105

Course Type: General Education / Transfer

## COM-781 Written Communication in the Workplace

This course focuses on applying the writing process to job application materials and workplace-related written communication.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## COM-924 Honors Project

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. This course can be repeated with different content for credit.

May be taken for up to 3 credits.

Credit Hours: 1  Lecture Hours: 16

Course Type: General Education / Transfer

## COM-928 Independent Study

This course provides students with an opportunity to pursue or investigate a topic of interest that does not fit within the framework of regular course offerings. An independent study self-directed learning agreement must be discussed with and submitted to a faculty advisor prior to registration. This course may be repeated for credit with different content. Course can be taken for 1–3 credits.

Credit Hours: 1  Lecture Hours: 16

Course Type: General Education / Transfer

## COM-949 Special Topics

Special Topics expands the curriculum by allowing students to enroll for up to three credits in a specific course or program area. Subject matter may be an in-depth extension of the particular area and is developed by the teaching faculty to meet unique interests and needs of the students. This course may not duplicate another one already in the catalog. This course may be repeated for credit with different content. This course can be taken for 1–3.

Credit Hours: 1  Lecture Hours: 16

Course Type: General Education / Transfer

# CON: Construction

## CON-102 Introduction to Residential Construction

Students will be introduced to basic residential construction safety, history, terminology, materials, and basic construction techniques. This course will cover basic information and develop manual skills needed to begin construction of a new home.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Course Type: Technical

## CON-108 Construction Safety

The Construction Safety course will provide students with the requirements and expectations required to work safely in the numerous occupations of the construction industry. The course will introduce students to the national OSHA safety standards for General Construction and upon their completion of this course will receive the OSHA 10 hour General Construction certification.

Credit Hours: 1 Lecture Hours: 16

Course Type: Technical

## CON-109 Construction Safety

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).

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Course Type: Technical

## CON-113 Construction Printreading

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.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Course Type: Technical

## CON-121 Carpentry Fundamentals I

This course will serve as a review and preparation for the National Center for Construction Education and Research (NCCER) Level One Carpentry objectives and performance tasks as defined by NCCER. This will include level one necessary skills for the trade.

Credit Hours: 4 Lecture Hours: 16 Lab Hours: 96

Prerequisite(s): CON-102

Course Type: Technical

## CON-124 Construction Estimating I

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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): CON-113

Course Type: Technical

## CON-125 Construction Estimating II

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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): ARC-175 and CON-124

Course Type: Technical

## CON-130 Concrete Theory

The concrete theory course will provide students with a basic understanding of concrete, and its relationship to residential construction.

Credit Hours: 1 Lecture Hours: 16

Course Type: Technical

## CON-131 Site Layout and Blueprint Reading

The Site Layout & Blueprint Reading course will train students to interpret and use site plans and other working drawings. Students will learn how to interpret construction symbols and building specifications. Students will develop site layouts for various projects utilizing lasers, builder’s levels, and transits using site plans and other working drawings.

Credit Hours: 1 Lecture Hours: 16

Course Type: Technical

## CON-133 Construction Technology Lab

The Construction Technology Laboratory course offers students the opportunity to further develop their skills with hand and power tool operations and to devote more time to hands-on construction projects while improving their skill competencies.

Credit Hours: 4 Lab Hours: 128

Course Type: Technical

## CON-140 Concrete Lab

The Concrete Lab course will provide students with hands-on experience in estimating, ordering, forming, working, and finishing concrete.

Credit Hours: 2 Lab Hours: 64

Pre/Co-requisite(s): Minimum grade of C- in CON-130.

Course Type: Technical

## CON-146 Construction Technology Lab 2

The Construction Technology Lab 2 course will provide students with the opportunity to utilize the knowledge gained in previous construction courses with hands-on applications to construction projects. This course will reinforce construction competencies in applied mathematics, site layout, blue print reading, framing, exterior finishing, and building science.

Credit Hours: 3 Lab Hours: 96

Prerequisite(s): CON-133

Course Type: Technical

## CON-201 Framing Techniques and Lab I

The Framing Techniques and Lab 1 course will introduce students to the methods used to layout wall lines and plates, measure and cut all required parts, and assemble a floor deck, walls, roof/ceiling, and stair framing with an emphasis on air sealing and advanced framing techniques.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Course Type: Technical

## CON-217 Exterior Finishing

This course will present the various materials used for residential exterior finishes. Topics will include insulated sheathing, building wraps, drainage planes, shingles, soffits, venting, windows, and exterior doors. Emphasis will be on sustainable construction techniques and building science principles.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Course Type: Technical

## CON-228 Methods of Interior Finishing

In the Methods of Interior Finishing course, students will discuss the theory and history of the residential interior system. The lab portion of this course will focus on gypsum wallboard installation, taping, finishing, texturing, and painting. The gypsum wallboard work will be followed by the installation of pre-hung door units, casing, base molding, custom trim, closet finishes, hardware, and cabinetry. Universal Design and a focus on indoor air quality will be stressed. Custom interior finish packages may be included.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Course Type: Technical

## CON-243 Advanced Framing Techniques

This course will utilize resource efficient advanced framing methods that stress energy efficiency and sustainable design. The "Whole Systems Approach" to residential design and construction will be teamed with Universal Design principles and Optimum Value Engineering techniques.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Prerequisite(s): Minimum grade of C- in CON-201.

Course Type: Technical

## CON-266 Construction Safety

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## CON-290 Construction Estimating and Project Management

The Construction Estimating and Project Management course will link construction estimating with project management and scheduling.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in CON-510.

Course Type: Technical

## CON-302 Building Science I

Students will learn building science principles and methods to determine how thermal energy transfer, air infiltration and exfiltration, internal and external air pressures, moisture migration, and durable design strategies apply to today's residential design and construction industry.

Credit Hours: 1 Lecture Hours: 16

Course Type: Technical

## CON-372 Technical Portfolio Design

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.

Credit Hours: 2 Lecture Hours: 32

Prerequisite(s): Must be in program major.

Course Type: Technical

## CON-373 Technical Presentations

This course highlights essential skills and provides the opportunity for students to develop expertise in both writing for and making technical presentations.

Credit Hours: 3 Lecture Hours: 48 Lab Hours: 64

Prerequisite(s): Must be in program major.

Course Type: Technical

## CON-486 Building Science 2 Sustainable Design

This course builds upon concepts learned in CON-302 Building Science. Students will focus on applying advanced building science concepts to actual design applications.

Credit Hours: 1 Lecture Hours: 16

Prerequisite(s): Minimum grade of C- in CON-302 or MAT-772. Or equivalent placement score.

Course Type: Technical

## CON-510 Construction Technology Lab 3

The Construction Technology Lab 3 course will provide students with the opportunity to utilize the knowledge they have gained in their previous construction courses with hands-on applications to construction projects. This course will require that students use their knowledge of construction codes and construction documents and computer aided drafting to provide detailed drawings adhering to the International Energy Conservation Code and Universal Design Principles.

Credit Hours: 3 Lab Hours: 96

Prerequisite(s): CON-146

Course Type: Technical

## CON-515 Construction Technology Lab 4

The Construction Technology Lab 4 course will provide students with the opportunity to utilize the knowledge they have gained in their previous construction, energy, building science, and design courses with hands-on applications to construction projects. This course will require students to use their knowledge of sustainable construction principles; adhering to the International Energy Conservation Code and Universal Design principles.

Minimum grade of C- in CON-510

Credit Hours: 4 Lecture Hours: 0 Lab Hours: 128

Course Type: Technical

## CON-933 Employment Training Experience

This course provides students with opportunities to gain on-the-job experience in the construction industry. Students will gain an understanding of the qualities and skills needed to be successful in the construction industry. Coordination and guidance will be provided by Department Instructors.

Credit Hours: 4 Co-op Hours: 256

Prerequisite(s): Minimum grade of C- in CON-102

Course Type: Technical

# CRJ: Criminal Justice

## CRJ-100 Introduction to Criminal Justice

This course examines the day-to-day operation of criminal justice in our society. Emphasis is on the inter-relationships of the components of law enforcement, the courts, corrections, and the juvenile justice system.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## CRJ-120 Introduction to Corrections

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## CRJ-131 Criminal Law and Procedure

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.

CRJ-100 with minimum grade of C-.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## CRJ-132 Constitutional Law

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.

CRJ-100 with minimum grade of C-.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## CRJ-141 Criminal Investigation

This course examines the techniques and procedures used to investigate crimes.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of C- in CRJ-100.

Course Type: Technical

## CRJ-143 Police Operations

This course examines the operational aspects of policing to include patrol theories and methods, crime response, operational skills and factors that influence police operations.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## CRJ-151 Defensive Tactics

This course provides instruction on self defense and control techniques necessary for law enforcement. Emphasis is placed on physical fitness, officer safety, criminal and civil liability.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Pre/Co-requisite(s): A minimum grade of C in CRJ-237 and CRJ-320.

Course Type: Technical

## CRJ-200 Criminology

This course explores theories of factors that influence criminal behavior, and analyzes criminal behavior in relationship to other social problems.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## CRJ-201 Juvenile Delinquency

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## CRJ-216 Employment Strategies for Criminal Justice

Employment Strategies for Law Enforcement 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, but it also covers information unique to the law enforcement selection process.

Credit Hours: 2 Lecture Hours: 32

Course Type: Technical

## CRJ-233 Probation, Parole, Community-Based Corrections

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.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): CRJ-100 and CRJ-120

Course Type: General Education / Transfer

## CRJ-234 Traffic Law

This course provides in depth examination of the State of Iowa traffic laws, and how traffic code enforcement enhances public safety.

Credit Hours: 2 Lecture Hours: 32

Course Type: Technical

## CRJ-252 Basic Firearms

This course covers the fundamentals of using a firearm with emphasis on safe practices, responsible firearm care, and proficient use of firearms to law enforcement standards.

Meet with an advisor to register for course.

Credit Hours: 1 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in CRJ-100.

Course Type: Technical

## CRJ-254 Advanced Firearms

This course expands skills developed in Basic Firearms by enhancing skill and proficiency with pistols and introduces safe use and handling of shotguns.

Meet with an advisor to register for course.

Credit Hours: 1 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in CRJ-100.

Pre/Co-requisite(s): Minimum grade of C- in CRJ-252.

Course Type: Technical

## CRJ-266 Report Writing and Testifying

Report writing and courtroom testimony skills are essential to detail officer activity and enable effective case prosecution. Report writing chronologically details officer investigative activity, and documents elements of a crime. Effective courtroom testimony is vital to the prosecution and resolution of civil and criminal cases.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of C- in CRJ-100.

Course Type: Technical

## CRJ-282 Crime Scene Investigation

This course involves the study of techniques and procedures used to investigate various crimes and crime scenes. The student will gain fundamental skills in photography, evidence preservation, collection, and processing; and scene measurement and documentation.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in CRJ-100.

Course Type: Technical

## CRJ-285 Physical Conditioning for Public Services

This course prepares public safety personnel for the physical demands of public safety entrance testing and work demands.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Course Type: Technical

## CRJ-299 Current Issues in Criminal Justice

A capstone course examining the current issues in the criminal justice system.

Credit Hours: 2 Lecture Hours: 32

Prerequisite(s): Minimum grade of C- in CRJ-100.

Course Type: Technical

## CRJ-315 Crisis Intervention

This course uses a criminal justice perspective to examine the methods and techniques of crisis intervention, causative factors, typologies of those involved, and psycho-social factors of crisis situations. A certificate in Mental Health First Aid is included.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of C- in CRJ-100.

Course Type: Technical

## CRJ-316 Juvenile Justice

This course examines the juvenile justice system from a practitioner perspective. It provides operational knowledge of how law enforcement, the courts, and correctional facilities navigate the juvenile offender.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of C- in CRJ-100.

Course Type: General Education / Transfer

## CRJ-317 White Collar Crime

This course examines white-collar crime as a social and criminal justice problem, the costs to society, explanations for behavior, and investigative techniques.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of C- in CRJ-100

Course Type: General Education / Transfer

## CRJ-320 Criminal Justice Ethics

An examination of ethical issues in the criminal justice system with an emphasis on reasoning and decision making for professional competence.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## CRJ-322 Tactical Police Operations

This course challenges student skills and decision making within scenario based learning activities.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in CRJ-100.

Course Type: Technical

## CRJ-924 Honors Project

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. This course can be repeated with different content for credit.

May be taken for up to 3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## CRJ-928 Independent Study

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.

May be taken for up to 3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: Technical

## CRJ-949 Special Topics

Special Topics expands the curriculum by allowing students to enroll for up to three credits in a specific course or program area. Subject matter may be an in-depth extension of the particular area and is developed by the teaching faculty to meet unique interests and needs of the students. This course may not duplicate another one already in the catalog. This course may be repeated for credit with different content. This course can be taken for 1–3.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## CRJ-952 Internship

Internship requires 128 hours of supervised volunteer work with a law enforcement agency. Course eligibility requires Advisor consent based on the ability of the student to successfully complete a criminal background check, and be accepted by an agency. Agency placement is dependent on agency assessment of student fitness to meet hiring requirements. Internship is offered during the 16 week Fall & Spring semesters, and during the 8 week Summer term.

Must be in program major. Instructor consent required to enroll.

Credit Hours: 2 Co-op Hours: 128

Prerequisite(s): Minimum grade of C- in CRJ-100.

Course Type: Technical

## CRJ-955 Field Observation

Student field experience in an appropriate correctional agency. Enrollment is restricted to second year students who have a minimum 2.00 CGPA and have successfully completed advisor approved courses. Placement based on approval of faculty advisor and host agency.

Credit Hours: 3 Lecture Hours: 16 Co-op Hours: 128

Prerequisite(s): CRJ-100 and CRJ-120

Course Type: General Education / Transfer

# CRR: Collision Repair and Refinish

## CRR-304 Introduction to Collision Repair

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.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Course Type: Technical

## CRR-361 Collision Lab I

The intent of this class is to prepare the students to gather all the resources for there structuring of the automobile. Material conservation, deadlines, human relation skills, leadership qualities and teamwork are closely monitored. This is an important class to prepare the student for their employment in industry.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Pre/Co-requisite(s): Minimum grade of D- in CRR-304.

Course Type: Technical

## CRR-511 Collision Production Technician

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.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Course Type: Technical

## CRR-658 Advanced Collision Repair

In this course students will receive hands on experience involving high production practiced used by industry collision repair technicians. Students will receive training on frame machines and attachment equipment used in collision repair shops.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Course Type: Technical

## CRR-659 Advanced Collision Production Tech

In this course students will receive training in collision related suspension and steering systems. Additional training will be received in drive train repairs and wheel alignment and brakes.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Course Type: Technical

## CRR-751 Electronic Estimating

Introduce students to various aspects of computerized estimating software while reinforcing repair procedures.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Course Type: Technical

## CRR-821 Introduction to Refinishing I

Students will receive a thorough understanding of personal health and safety, use of sanding abrasives, air power tools and equipment, and paint guns.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Course Type: Technical

## CRR-822 Introduction to Refinishing II

Students will receive training in refinishing products, masking procedures, corrosion protection, and paint preparation.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Pre/Co-requisite(s): A minimum grade of D- in CRR-821.

Course Type: Technical

## CRR-874 Advanced Refinishing

This course combines lecture and lab activities to develop advanced automotive refinishing shop production skills by refinishing paint damaged automobiles to pre-accident condition. Paint manufacturers recommendations and refinishing shop standards are used to repair the vehicle to pre-accident condition.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Course Type: Technical

## CRR-879 Refinishing Production Technician

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.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Course Type: Technical

## CRR-886 Advanced Refinishing II

This course will provide students with advance paint techniques, training in basic electrical fundamentals and training in Airbag Systems as they apply to collision and refinishing repairs.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Pre/Co-requisite(s): Minimum grade of D- in CRR-874.

Course Type: Technical

# CSC: Computer Science

## CSC-110 Introduction to Computers

This is an introductory course that surveys a variety of topics to include history, hardware, software, terminology, communications, computer ethics, and societal impact of computers. In addition to computer literacy, students will complete hands-on modules using operating systems, word processing, database, presentation, and spreadsheet software; such as Microsoft Office programs.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): The ability to enter data using a computer keyboard at a rate of no less than 15 words per minute on a three-minute timing. A minimum grade of C in RDG-039 or appropriate Placement score.

Course Type: General Education / Transfer

## CSC-116 Information Computing

This course presents the basic concepts of information systems and computer literacy. The course incorporates theory as well as hands-on practice, which focuses on spreadsheets and database management systems (DBMS).

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D- in MAT-063 or MAT-060. Or equivalent placement score.

Course Type: General Education / Transfer

# DEA: Dental Assistant

## DEA-103 Orientation to Dental Assisting

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.

Credit Hours: 2 Lecture Hours: 32

Course Type: Technical

## DEA-258 Dental Anatomy

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.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Course Type: Technical

## DEA-262 Dental Sciences

This course provides students with basic understanding of biomedical and dental sciences including: oral pathology and disease processes, pharmacology and therapeutics, emergency treatment, nutrition and dietary considerations for dental patients.

Credit Hours: 1 Lecture Hours: 16

Prerequisite(s): Minimum grade of C in DEA-103, or BIO-163, or both BIO-168 and BIO-173

Course Type: Technical

## DEA-302 Dental Radiography

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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## DEA-412 Dental Materials I

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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## DEA-417 Dental Materials II

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.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Prerequisite(s): Minimum grade of C in DEA-412.

Course Type: Technical

## DEA-513 Chairside Assisting I

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.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Course Type: Technical

## DEA-514 Chairside Assisting II

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.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Prerequisite(s): Minimum grade of C in DEA-513.

Course Type: Technical

## DEA-556 Assisting Clinic I

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.

Credit Hours: 4 Lab Hours: 0 Clinic Hours: 192

Course Type: Technical

## DEA-578 Dental Assisting Clinic II

Application of knowledge and skill as students rotate through dental offices. General and specialty practices are included in rotations.

Credit Hours: 5 Co-op Hours: 320

Course Type: Technical

## DEA-591 Dental Assisting Seminar

Discussion and problem-solving from clinical practice. Provides an awareness of types of office situations and discussion of clinical aspects of dental assisting and dentistry. Oral reports and weekly evaluations are required.

Credit Hours: 1 Lecture Hours: 16

Prerequisite(s): Minimum grade of C in DEA-262, DEA-417, DEA-514, DEA-556, DEA-603, and DEA-701

Co-requisite(s): DEA-578

Course Type: Technical

## DEA-603 Dental Specialties

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.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Prerequisite(s): Minimum grade of C in DEA-513.

Course Type: Technical

## DEA-701 Dental Office Procedures

This course is a study of basic responsibilities of dental office receptionists. Procedures included in the course are: management of patient records, filing, completion of insurance claim forms, basic bookkeeping, banking, appointment control, recall management, inventory control, credit and collection, and employer records management. Instruction is provided in computer applications relating to these office management procedures. Also included in this course is a study of office design and office management concepts.

Credit Hours: 1 Lecture Hours: 16

Prerequisite(s): Minimum grade of C in BIO-163 or both BIO-168 and BIO-173.

Course Type: Technical

# DHY: Dental Hygiene

## DHY-111 Head and Neck Anatomy for Dental Hygiene

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.

Credit Hours: 2 Lecture Hours: 32

Prerequisite(s): Admission to Dental Hygiene program.

Course Type: Technical

## DHY-116 Tooth Morphology

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.

Credit Hours: 1 Lecture Hours: 0 Lab Hours: 32

Prerequisite(s): Admission to Dental Hygiene program.

Course Type: Technical

## DHY-121 Oral Histology and Embryology

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.

Credit Hours: 2 Lecture Hours: 32

Prerequisite(s): Admission to Dental Hygiene program.

Course Type: Technical

## DHY-131 Pharmacology

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.

Credit Hours: 2 Lecture Hours: 32

Prerequisite(s): Minimum grade of C in BIO-173 and CHM-132.

Course Type: Technical

## DHY-141 General and Oral Pathology

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

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of C in DHY-121.

Pre/Co-requisite(s): Minimum grade of C in BIO-173.

Course Type: Technical

## DHY-160 Oral Radiology

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, digital radiography and operation of standard and panoramic x-ray equipment. Lifelike mannequins for student practice are utilized, and emphasis is placed on radiation safety procedures for both patient and operator.

Required admission to the Dental Hygiene program.

Credit Hours: 3 Lecture Hours: 32 Clinic Hours: 48

Course Type: Technical

## DHY-175 Fundamentals of Clinical Dental Hygiene

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.

Credit Hours: 6 Lecture Hours: 48 Lab Hours: 96

Prerequisite(s): Admission to the Dental Hygiene program.

Course Type: Technical

## DHY-187 Clinical Dental Hygiene II

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.

Credit Hours: 3 Clinic Hours: 144

Prerequisite(s): Minimum grade of C in DHY-175 and DHY-160.

Co-requisite(s): DHY-188

Course Type: Technical

## DHY-188 Clinical Dental Hygiene II Seminar

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.

Credit Hours: 1 Lecture Hours: 16

Prerequisite(s): Minimum grade of C in DHY-160 and DHY-175.

Co-requisite(s): DHY-187

Course Type: Technical

## DHY-210 Introduction To Periodontology

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.

Credit Hours: 1 Lecture Hours: 16

Prerequisite(s): Minimum grade of C in DHY-121.

Co-requisite(s): Minimum grade of C in DHY-141.

Course Type: Technical

## DHY-211 Periodontology

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.

Credit Hours: 2 Lecture Hours: 32

Prerequisite(s): Minimum grade of C in DHY-141 and DHY-210.

Course Type: Technical

## DHY-227 Biomaterials for the Dental Hygienist

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.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Prerequisite(s): Minimum grade of C in CHM-122.

Co-requisite(s): Minimum grade of C in CHM-132.

Course Type: Technical

## DHY-240 Ethics and Jurisprudence

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.

Credit Hours: 1 Lecture Hours: 16

Prerequisite(s): Minimum grade of C in DHY-175.

Course Type: Technical

## DHY-254 Community Oral Health I

The purpose of this course 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.

Credit Hours: 2 Lecture Hours: 32

Prerequisite(s): Minimum grade of C in DHY-188 and SOC-110.

Course Type: Technical

## DHY-259 Community Oral Health Service Learning Experience

This course is designed to provide the students with experience developing and evaluating community oral health programs.

Credit Hours: 1 Lab Hours: 32

Prerequisite(s): Minimum grade of C in DHY-254.

Course Type: Technical

## DHY-264 Special Needs Patient Education

This course provides basic concepts of learning for behavioral change and the dental hygiene care of patients with special needs.

Credit Hours: 2 Lecture Hours: 32

Prerequisite(s): Minimum grade of C in DHY-175.

Course Type: Technical

## DHY-271 Pain Control

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.

Credit Hours: 2 Lecture Hours: 32

Prerequisite(s): Minimum grade of C in DHY-113 and DHY-185.

Co-requisite(s): Minimum grade of C in DHY-131.

Course Type: Technical

## DHY-272 Interdisciplinary Health Care

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.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Prerequisite(s): Minimum grade of C in DHY-254 and DHY-297.

Course Type: Technical

## DHY-297 Clinical Dental Hygiene III

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.

Credit Hours: 4 Clinic Hours: 192

Prerequisite(s): Minimum grade of C in DHY-187 and DHY-188.

Co-requisite(s): DHY-211 and DHY-298

Course Type: Technical

## DHY-298 Clinical Dental Hygiene III Seminar

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.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Prerequisite(s): Minimum grade of C in DHY-187 and DHY-188.

Co-requisite(s): DHY-271 and DHY-297

Course Type: Technical

## DHY-307 Clinical Dental Hygiene IV

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.

Credit Hours: 4 Clinic Hours: 192

Prerequisite(s): Minimum grade of C in DHY-271, DHY-197, and DHY-298.

Course Type: Technical

## DHY-308 Clinical Dental Hygiene Seminar IV

This course will incorporate dental hygiene care with critical thinking and case studies for the students as they prepare for dental hygiene licensure.

Credit Hours: 1 Lecture Hours: 16

Prerequisite(s): Minimum grade of C in DHY-271, DHY-297, and DHY-298.

Co-requisite(s): DHY-307

Course Type: Technical

## DHY-901 Independent Study Clinical Dental Hygiene

This course is designed to remediate the skills of exploring, calculus detection and removal, and patient evaluation skills previously learned in the clinical portion of the dental hygiene program in preparation of the student retaking the clinical dental hygiene board exam. This course can be taken for 1–3 credit hours.

Credit Hours: 1 Lab Hours: 32

Course Type: Technical

## DHY-924 Honors Project

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. This course can be repeated with different content for credit.

May be taken for up to 3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## DHY-928 Independent Study

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

May be taken for up to 5 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: Technical

# DRA: Drama — Film and Theatre

## DRA-107 Theatrical Arts and Society

This course introduces students to the literary genre of drama throughout history. Emphasis will be on reading, discussing, and evaluating various plays representative of their era and genre. Students will respond to drama through informal and formal written assignments that foster skill in analysis and interpretation. Students will also learn about how the genre of drama has evolved and how these kinds of dramatic narratives interrelate with societies of the past and present.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## DRA-110 Introduction to Film

This course introduces students to the various language systems of film, including film-making techniques, creators, genres, narratives, ideology, and film theory/criticism. Students will explore the cultural importance of cinema as art by analyzing selected movies and clips which demonstrate artistic excellence.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## DRA-130 Acting I

This course introduces the basic acting techniques with emphasis on concentration, movement, voice, and play script analysis. Students will experience the acting process by engaging in various exercises and performing monologues and scenes.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

# DSL: Diesel

## DSL-360 Advanced Diesel Engines, Emissions, and Fuel Systems

This course introduces the latest engine advancements. Emission systems such as Exhaust Gas Recirculation (EGR), Diesel Particulate Filters (DPF), and Selective Catalytic Reduction (SCR) are covered along with common rail fuel systems.

Credit Hours: 4 Lecture Hours: 16 Lab Hours: 96

Prerequisite(s): Minimum grade of C- in DSL 444.

Course Type: Technical

## DSL-377 Diesel Engine Rebuild

Students are introduced to diesel engine application, design, construction, theory, and operating principles. This course also covers diagnosis, disassembly, and assembly of diesel engines.

Credit Hours: 7 Lecture Hours: 48 Lab Hours: 128

Course Type: Technical

## DSL-404 Diesel Truck Power Transfer Systems

A study of the diesel truck 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.

Credit Hours: 4 Lecture Hours: 16 Lab Hours: 96

Prerequisite(s): Minimum grade of C- in AGM-119, AGM-104, AGM-124, AGM-333, and AGM-224.

Course Type: Technical

## DSL-411 Equipment Repair I

This course is designed to give students the opportunity to apply competencies previously achieved to repair and service projects.

Credit Hours: 4 Lecture Hours: 16 Lab Hours: 96

Prerequisite(s): Minimum grade of C- in AGM-401.

Co-requisite(s): Minimum grade of C- in DSL 404.

Course Type: Technical

## DSL-424 EFI Engine Systems

This course provides a thorough explanation and hands-on experience in the theory, operation, diagnosis, maintenance and repair of electronic fuel injected diesel engines. Learning activities include the use of testing equipment to diagnose EFI engines. Lab activities are designed to reinforce the understanding and maintenance of these engines.

Credit Hours: 4 Lecture Hours: 16 Lab Hours: 96

Prerequisite(s): Minimum grade of C- in AGM-104, AGM-124, and AGM-333.

Course Type: Technical

## DSL-444 Fuel Systems

The Fuel Systems course is designed to provide information about diesel fuel injection systems. Mechanical and electronic injection systems, which are commonly used throughout the diesel industry, are studied. Basic system design, pump operation, and tune-up adjustments are covered. Computer diagnostics and software applications used in relation to the heavy-duty engine maker are covered.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Course Type: Technical

## DSL-831 Preventative Maintenance

This course covers routine and extended vehicle maintenance. The course will also cover information on general pre-operational checks and performing planned maintenance repairs to vehicles. Course will also cover DOT inspections, air and hydraulic brake systems, and basic SMAW welding and oxyacetylene cutting.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Prerequisite(s): Minimum grade of C- in AGM-124.

Course Type: Technical

# ECE: Early Childhood Education

## ECE-103 Introduction to Early Childhood Education

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## ECE-125 School Age Care

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.

Credit Hours: 2 Lecture Hours: 32

Course Type: Technical

## ECE-133 Child Health, Safety, and Nutrition

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## ECE-158 Early Childhood Curriculum I

Focuses on the development, implementation and assessment of appropriate environments and curricula for young children ages three through eight. Students prepare to utilize 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.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## ECE-159 Early Childhood Curriculum II

Focuses on the development, implementation and assessment of appropriate environments and curricula for young children ages three through eight. Students prepare to utilize developmentally appropriate 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.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## ECE-170 Child Growth and Development

Reviews typical and atypical development of children from conception to adolescence in all developmental domains. Presents interactions between child, family and society within a variety of community and cultural contexts. Examines theories associated with our understanding of children.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## ECE-221 Infant/Toddler Care and Education

Focuses on care, education, and assessment of children from birth to thirty-six months. Prepares students to utilize developmentally appropriate practices including responsive caregiving, routines as curriculum, importance of relationships with diverse families, and a focus on the whole child in inclusive settings.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## ECE-243 Early Childhood Guidance

Focuses on effective approaches and positive guidance strategies for supporting the development of all children. Emphasizes supportive interactions and developmentally appropriate environments. Uses assessment to analyze and guide behaviors. Studies impact of families and diversity on child guidance.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## ECE-250 Advanced Curriculum Planning

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.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): EDE-158 and ECE-159

Course Type: Technical

## ECE-260 Current Topics and Issues in Child Care

National, state and local topics and issues impacting childcare are examined.

Credit Hours: 2 Lecture Hours: 32

Course Type: Technical

## ECE-274 Field Experience I

Supervised experience in selected early childhood settings serving children ages birth through eight. Includes integration of theory, research, and reflective practice. Provides an understanding of developmentally appropriate practices and the developmental stages of diverse populations of young children and families. Emphasizes professional relationships and behavior, appropriate adult/child interactions, basic curriculum planning, and program routines.

Credit Hours: 2 Co-op Hours: 128

Prerequisite(s): ECE-221

Co-requisite(s): ECE-994

Pre/Co-requisite(s): ECE-158, ECE-159, ECE-170, and ECE-243

Course Type: Technical

## ECE-284 Field Experience II

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.

Credit Hours: 2 Co-op Hours: 128

Prerequisite(s): Minimum grade of D in ECE-274 and ECE-944.

Co-requisite(s): ECE-945

Course Type: Technical

## ECE-290 Early Childhood Program Administration

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.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): ECE-158 and ECE-159

Course Type: Technical

## ECE-298 Career Strategies for Early Childhood

Career Strategies for Early Childhood 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.

Credit Hours: 2 Lecture Hours: 32

Course Type: Technical

## ECE-299 Early Childhood Professional Portfolio

Develop professional portfolio for Early Childhood, including artifact collections, resume, and teaching philosophy.

Credit Hours: 1 Lecture Hours: 16

Course Type: Technical

## ECE-924 Honors Project

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. This course can be repeated with different content for credit.

May be taken for up to 3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## ECE-944 Field Experience Seminar I

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.

Credit Hours: 1 Lecture Hours: 16

Course Type: Technical

## ECE-945 Field Experience Seminar II

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.

Credit Hours: 1 Lecture Hours: 16

Co-requisite(s): ECE-284.

Course Type: Technical

# ECN: Economics

## ECN-110 Introduction to Economics

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 ECN120 or ECN130.)

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## ECN-120 Principles of Macroeconomics

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.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of D- in MAT-060 or MAT-063. Or equivalent placement score.

Course Type: General Education / Transfer

## ECN-130 Principles of Microeconomics

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.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of D- in MAT-060 or MAT-063. Or equivalent placement score.

Course Type: General Education / Transfer

# EDU: Education

## EDU-130 Home, School, and Community Relations

Focuses on the importance of collaborative efforts of the school, home, and community to the promotion of the children's healthy development. Research relating to parental involvement, impact of inclusion, and factors which place families at risk are examined. Explores attitudes, philosophies, and practical techniques with emphasis on building respectful, culturally sensitive relationships with families, utilizing community resources and working with diverse families.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## EDU-210 Foundations of Education

Examines American education from a historical, philosophical, and sociological perspective. Challenges and issues in education today will be discussed in the context of school organization, politics, funding, curriculum, professionalism, legal issues, and effective school and teacher characteristics.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## EDU-214 Exploring PK-12 Education

This course is designed to give students the opportunity to gain insight into the teaching profession and examine what it means to be a PK-12 teacher. Students will critically evaluate teaching as their chosen or possible profession. An overview of the skills and knowledge they will need to be successful professionals will be investigated. Current and future trends in public education will be examined.

Credit Hours: 2 Lecture Hours: 32

Course Type: General Education / Transfer

## EDU-223 Multicultural Education

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## EDU-235 Children's Literature

The 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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## EDU-240 Educational Psychology

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, exceptionality and individual differences; curriculum development and assessment; motivation and classroom management.

Credit Hours: 3 Lecture Hours: 48

Co-requisite(s): EDU-920.

Course Type: General Education / Transfer

## EDU-246 Including Diverse Learners

Students are introduced to the issues and practices regarding the inclusion of diverse student populations in general education settings. The needs of all students including general education, special education, and gifted will be emphasized. Strategies for adapting curriculum and the classroom will be examined. Support services that are available to teachers and students will be explored.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## EDU-255 Technology in the Classroom

This is a basic course in the planning and practical use of technology resources to enhance and extend the learning process in the face to face classroom, hybrid and online learning. Students will be exposed to various ways of thinking about educational media and its applications in the classroom. The course is designed to provide the student with experiences that will enable them to select, arrange, utilize, and produce a variety of resources to enhance student learning through their creation of a Thematic Unit.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## EDU-901 Academic Service Learning Experience

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.

Credit Hours: 1 Lab Hours: 32

Course Type: General Education / Transfer

## EDU-920 Field Experience

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. May be taken for 1 or 2 credits.

Credit Hours: 1 Lab Hours: 32

Co-requisite(s): EDU-240

Course Type: General Education / Transfer

## EDU-924 Honors Project

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. This course can be repeated with different content for credit.

Can be taken for 1 – 3 credits.

Credit Hours: 1  Lecture Hours: 16

Course Type: General Education / Transfer

## EDU-928 Independent Study

This course provides students with an opportunity to pursue or investigate a topic of interest that does not fit within the framework of regular course offerings. An independent study self-directed learning agreement must be discussed with and submitted to a faculty advisor prior to registration. This course may be repeated for credit with different content. Course can be taken for 1–3 credits.

Credit Hours: 1  Lecture Hours: 16

Course Type: General Education / Transfer

## EDU-949 Special Topics

Special Topics expands the curriculum by allowing students to enroll for up to three credits in a specific course or program area. Subject matter may be an in-depth extension of the particular area and is developed by the teaching faculty to meet unique interests and needs of the students. This course may not duplicate another one already in the catalog. This course may be repeated for credit with different content. This course can be taken for 1–3.

Credit Hours: 1  Lecture Hours: 16

Course Type: General Education / Transfer

# EGR: Engineering

## EGR-410 PLTW - Principles of Engineering

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.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Course Type: Technical

## EGR-450 PLTW - Computer Integrated Manufacturing

This course enhances computer modeling skills by applying principles of robotics and manufacturing automation to the creation of models of three-dimensional designs.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Prerequisite(s): EGR-400

Course Type: Technical

# EGT: Engineering Technology

## EGT-108 Principles of Engineering

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.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Course Type: Technical

## EGT-140 Fluid Power

This is a course of study in the basic fluid power principles and components of fluid power systems.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Course Type: Technical

## EGT-144 Fluid Power Applications

This course is a continuation study of fluid power systems and applications with particular emphasis on troubleshooting and performance evaluations.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Course Type: Technical

## EGT-149 Fluid Power Systems II

This is a continued study of fluid power components, their operations, and functions in circuit application, as well as graphic circuit print reading.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Pre/Co-requisite(s): EGT-140.

Course Type: Technical

## EGT-154 Pneumatics

This course will teach the skills and knowledge for pneumatic devices, uses, connections and maintenance.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Course Type: Technical

## EGT-212 Hydraulics Troubleshooting

This course will teach the skills necessary for safe performance testing and troubleshooting of hydraulic components and systems.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Prerequisite(s): Minimum grade of D in EGT-149.

Course Type: Technical

## EGT-243 Statics and Strength of Materials

Statics deals with forces on structural members at rest. Topics include vector and scalar quantities, resultants of coplanar force systems, free-body diagrams, equations of equilibrium, equilibrium in force systems. Strength of materials deals with centroids and moments of inertia, the relationship between stress and strain; shear, moments and deflections in beams; columns; and welded and bolted connections.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Pre/Co-requisite(s): A minimum grade of D- in PHY-162 or PHY-183.

Course Type: Technical

## EGT-400 PLTW - Introduction to Engineering Design

This course uses a design development process while enriching technical and engineering problem-solving skills; students create and analyze models using specialized computer software (AutoCAD Inventor)

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Course Type: Technical

## EGT-410 PLTW - Principles of Engineering

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.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Course Type: Technical

## EGT-416 Civil Engineering and Architecture

This is a combined lecture and lab course to introduce students to the interdependent fields of civil engineering and architecture; students explore various systems of architecture and civil engineering, learn project planning, and basic building design using specialized building information modeling software.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Course Type: Technical

## EGT-420 PLTW - Digital Electronics

This course teaches applied logic through work with electronic circuitry, which students also construct and test for functionality.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Course Type: Technical

## EGT-450 PLTW - Computer Integrated Manufacturing

This course enhances computer modeling skills by applying principles of robotics and manufacturing automation to the creation of models of three-dimensional designs.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Course Type: Technical

# EGT-470 PLTW - Engineering Design and Development

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.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Course Type: Technical

# ELT: Electronics

## ELT-104 Electronics Drafting

An introduction to drafting fundamentals including: two-dimensional, orthographic, and sectional. Auxiliary and pictorial; electronic symbols, devices, circuitry and systems, using CAD.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Prerequisite(s): Minimum grade of D- in EGT-108 or EGT-410.

Course Type: Technical

## ELT-120 Schematics for Electromechanical Techs

This course is to train factory electricians and mechanics to read most under-roof factory schematics in the food, manufacturing, warehousing, and energy production industries.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of C- in ELT-139, EGT-140, ELT-215, and ELT-234. Or instructor approval.

Course Type: Technical

## ELT-133 Electric Motor Drives

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, and AC servo.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Course Type: Technical

## ELT-139 Electrical Systems

Students will gain knowledge and hands-on experience in DC and AC circuits and principles, electrical measurement instruments, electrical safety, conductor sizes and types, wiring applications, wiring techniques, and troubleshooting.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Pre/Co-requisite(s): MAT-772

Course Type: Technical

## ELT-156 Industrial Electronics

This course covers the theory and application of devices and circuits used in industrial and commercial electronics.

Credit Hours: 5 Lecture Hours: 32 Lab Hours: 96

Prerequisite(s): Minimum grade of D- in ELT-322.

Course Type: Technical

## ELT-192 Introduction to Computer Science

This course will introduce the student to the basic use of the personal computer. The course will include a study of Word Processing, Spreadsheet, and BASIC programming language.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## ELT-215 Motors and Controls

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.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Prerequisite(s): ELT-139

Course Type: Technical

## ELT-216 DC Controls Circuits

The course is an introduction DC control components and DC control systems used in industrial applications. Both stand-alone circuits and PLC circuits are covered.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in ELT-139.

Course Type: Technical

## ELT-234 PLC Programming

An introduction to the fundamental principles of programmable controller operation. Topics to be presented will include basic system configurations and hardware, relay-equivalent instructions, timers and counters, data manipulation commands, and searching/program documentation.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in ELT-139.

Course Type: Technical

## ELT-239 Advanced Electrical Systems

This class stresses electrical distribution systems, electrical transformers, AC and DC motor theory, operation and repair, manual and magnetic starters, and motor overload protection. Specific topics will include types of electrical distribution systems, transformer theory and operation, lockout/ tagout techniques, use of motor testing devices, and construction, sizing, and installation of motor overload devices.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Prerequisite(s): Minimum grade of C- in ELT-139.

Course Type: Technical

## ELT-240 PLCs II

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; advanced PLC architectures; as well as interfacing, troubleshooting, and applications.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in ELT-234.

Course Type: Technical

## ELT-245 PLCs III

An introduction to the programmable controller operation using Siemens PLC systems. Topics to be presented will include system configurations and hardware, relay-equivalent instructions and timers and counters for ladder logic programming, and function block diagram programming concepts.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in ELT-139.

Course Type: Technical

## ELT-290 DC Electricity

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. An understanding of algebra is required.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Pre/Co-requisite(s): A minimum grade of D- in MAT-504.

Course Type: Technical

## ELT-291 AC Electricity

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. An understanding of algebra is required.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Pre/Co-requisite(s): A minimum grade of D- in ELT-290 or MAT-504.

Course Type: Technical

## ELT-315 Digital Logic for Industrial Applications

This course provides students with knowledge and understanding of digital logic functions in industrial applications. Topics of study include combinational logic circuits, flip-flops, counters, registers and semiconductor memory devices.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Co-requisite(s): A minimum grade of C- in ELT-139.

Course Type: Technical

## ELT-321 Operational Amplifiers

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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): ELT-291

Pre/Co-requisite(s): MAT-514

Course Type: Technical

## ELT-322 Electronics Devices

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.

Credit Hours: 4 Lecture Hours: 16 Lab Hours: 96

Prerequisite(s): Minimum grade of D- in ELT-291.

Pre/Co-requisite(s): Minimum grade of D- in MAT-514.

Course Type: Technical

## ELT-403 Visual Basic

This course introduces students to Visual Basic programming languages. The objective of this course is to provide students with the understanding of high level programming languages and programming techniques used in problem solving.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Prerequisite(s): Minimum grade of D- in ELT-600.

Course Type: Technical

## ELT-415 Communication Circuits I

This course is an introduction to communication circuits, with an in depth study of A.M. and F.M. transceiver theory.

Credit Hours: 5 Lecture Hours: 16 Lab Hours: 128

Prerequisite(s): Minimum grade of D- in ELT-322.

Course Type: Technical

## ELT-417 Computer Systems

This course provides the students with the understanding of personal computer hardware systems and administration of various computer operating systems. Also microcomputer troubleshooting and maintenance is covered.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Prerequisite(s): Minimum grade of D- in EGT-108, or EGT-410, or ELT-469, or EGT-420.

Course Type: Technical

## ELT-444 Industrial Networking

This course introduces the student to networking industrial equipment such as PLC's, Variable Frequency Drives, control components and computers. Industry-standard connectivity is covered and actual networks are set up.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in ELT-234.

Course Type: Technical

## ELT-469 Digital Circuits and Systems

This course provides students with knowledge and understanding of digital logic circuit design and operation using integrated circuits. Some topics included are combinatorial logic circuits, flip-flops, arithmetic circuits, counters, registers, and logic families, with an introduction to hardware and applied C programming of Microcontrollers.

Credit Hours: 5 Lecture Hours: 32 Lab Hours: 96

Prerequisite(s): Minimum grade of D- in ELT-322 and ELT-600.

Course Type: Technical

## ELT-494 Data Acquisition Systems

This course includes signal conditioning, transducer characteristics, microcontroller input/output and interfacing using C programming language and applications.

Credit Hours: 5 Lecture Hours: 32 Lab Hours: 96

Prerequisite(s): Minimum grade of D- in ELT-600.

Course Type: Technical

## ELT-497 Communication Circuits II

This course is continuation of Communication Circuits I. The course also includes the study of microwave communications.

Credit Hours: 6 Lecture Hours: 48 Lab Hours: 96

Prerequisite(s): Minimum grade of D- in ELT-415.

Course Type: Technical

## ELT-532 Semiconductors for Industrial Applications

This course provides an introduction to electronic devices and their uses. Applications of semiconductors in power electronics circuits for control are covered. This course provides the foundation for advanced courses in electronics systems.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in ELT-139.

Course Type: Technical

## ELT-600 Applied Computer Programming

This course introduces students to Visual C and LabView programming languages. The objective of this course is to provide students with the understanding of high level programming languages and programming techniques used in problem solving.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Course Type: Technical

## ELT-703 Introduction to Networking

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.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Prerequisite(s): Minimum grade of D- in ELT-494.

Course Type: Technical

## ELT-704 Embedded Processors

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. This includes typical microcontroller architecture with C programming, input/output and interfacing concepts, hardware/software interaction and applications.

Credit Hours: 2 Lab Hours: 64

Prerequisite(s): Minimum grade of D- in ELT-494.

Course Type: Technical

## ELT-736 Instrumentation and Control

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.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in ELT-139.

Course Type: Technical

## ELT-802 Electronics Design Project I

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.

Credit Hours: 1 Lab Hours: 32

Course Type: Technical

## ELT-803 Electronics Design Project II

This course is a continuation of ELT802 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.

Credit Hours: 1 Lab Hours: 32

Prerequisite(s): ELT-802

Pre/Co-requisite(s): ELT-156

Course Type: Technical

## ELT-818 Electrical Troubleshooting

Electrical Troubleshooting course will provide students with a systematic approach to electrical troubleshooting. This includes the use of test equipment to test components or entire systems. Students will use critical thinking to analyze the state of an electrical system.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Prerequisite(s): A minimum grade of D in ELT-239 and ELT-215.

Course Type: Technical

# EMS: Emergency Medical Services

## EMS-114 Emergency Medical Responder

This course provides the student with the necessary skills and knowledge to identify and treat life-threatening emergencies, wounds and fractures, medical and environmental emergencies and patient access and handling. This course utilizes a combination of classroom lecture and skills practice.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Course Type: Technical

## EMS-363 Emergency Medical Technician I

Prepares the student to provide emergency care at an Emergency Medical Technician (EMT) level as outlined by the National Emergency Medical Services Education standards. Introduces basic emergency care concepts including fundamental knowledge of the EMS system, safety/well-being of the EMT and medical/legal and ethical issues to the provision of emergency care. Focuses on patient assessment, care and transportation.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## EMS-364 Emergency Medical Technician II

Introduces shock and resuscitation, patient assessment, care and transportation of the acutely ill, trauma patient, special patient populations and EMS operations. Focuses on Geriatric Education for EMS (GEMS), Hazmat Awareness, and Incident Command. Students will be required to demonstrate proficiency for skills within the scope of practice for patients of all ages.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in EMS-363.

Pre/Co-requisite(s): A minimum grade of C in EMS-363.

Course Type: Technical

## EMS-365 Emergency Medical Technician II Clinical

Prepares students to provide emergency medical assessment, care and transportation of acutely ill or injured patients of all ages. Develops student proficiency in previously learned skills when providing direct patient care in selected clinical settings. Requires student participation in and documentation of patient contacts and field experience approved by the medical director and the EMS program director. Students must demonstrate competency in skills for patients of all ages within the scope of practice.

Credit Hours: 1 Co-op Hours: 64

Prerequisite(s): Minimum grade of C- in EMS-364.

Pre/Co-requisite(s): A minimum grade of C in EMS-364.

Course Type: Technical

## EMS-370 Advanced EMT I

This course is the first of three required for Advanced Emergency Medical Technician (AEMT) certification. This course adheres to the National EMS Education Standards which are based on the National EMS Core Content and the National EMS Scope of Practice that define the minimal entry-level educational competencies for the AEMT. The modules covered in this course include Public Health, Pharmacology, Airway Management, Respiration and Ventilation, Assessment, Shock and Resuscitation, and Cardiovascular Emergencies.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Course Type: Technical

## EMS-371 Advanced EMT II

This course is the second of three required for Advanced Emergency Medical Technician (AEMT) certification. This course adheres to the National EMS Education Standards which are based on the National EMS Core Content and the National EMS Scope of Practice that define the minimal entry-level educational competencies for the AEMT. The modules covered in this course include Medicine, Trauma, Special Patient Populations, and EMS Operations.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Prerequisite(s): Minimum grade of C- in EMS-370.

Course Type: Technical

## EMS-372 Advanced EMT Clinical

This course is the final of three courses required for Advanced Emergency Medical Technician (AEMT) certification. This course prepares students to provide emergency medical assessment, care and transportation of acutely ill or injured patients of all ages. Develops student proficiency in previously learned skills when providing direct patient care in selected clinical settings. Requires student participation in and documentation of patient contacts and field experience approved by the medical director and the EMS program director. Students must demonstrate competency in skills for patients of all ages within the scope of practice.

Credit Hours: 2 Co-op Hours: 128

Prerequisite(s): Minimum grade of C- in EMS-370.

Co-requisite(s): EMS-371

Course Type: Technical

## EMS-541 Clinical I

This course will provide a clinical atmosphere for performance of psychomotor skills. To successfully complete this course, students must demonstrate competency in skills for patients of all ages within the scope of practice. The student will participate in and document patient contacts and field experience. Additional contact hours (up to 3 times the stated minimum) may be needed to meet the course competencies.

Credit Hours: 3 Co-op Hours: 192

Course Type: Technical

## EMS-546 Clinical II

This course will provide a clinical atmosphere for performance of psychomotor skills. To successfully complete this course, students must demonstrate competency in skills for patients of all ages within the scope of practice. The student will participate in and document patient contacts and field experience. Additional contact hours (up to 3 times the stated minimum) may be needed to meet the course competencies.

Credit Hours: 3 Co-op Hours: 192

Prerequisite(s): Minimum grade of C- in EMS-541.

Course Type: Technical

## EMS-610 Paramedic Pharmacology and Medication Administration

This is a required course in Hawkeye's National Paramedic Education Program. This course prepares the paramedic to administer medications per the paramedic scope of practice.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Course Type: Technical

## EMS-619 Airway and Patient Assessment

This course will prepare the entry-level paramedic in advanced airway management, physical assessment, field assessment, clinical decision making, and the assessment and management of respiratory emergencies.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Course Type: Technical

## EMS-641 Introduction to Paramedicine

This course provides an overview of paramedic roles and responsibilities and the emergency medical service system. Included is discussion of medicolegal and ethical issues in EMS, agents of trauma and disease, career opportunities for paramedics, demonstration of proper documentation in EMS, and non-patient care aspects of EMS.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## EMS-650 Medical and Psychological Emergencies

This course will provide education for the paramedic in the areas of pathophysiology, recognition, assessment and management of neurological, endocrine, genitourinary/renal, behavioral, toxicological, immunological, hematological, infectious diseases, respiratory and abdominal/gastrointestinal and non-traumatic musculoskeletal complaints.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Course Type: Technical

## EMS-654 EMS Operations

This course will provide the paramedic student with knowledge of operational roles and responsibilities to ensure patient, public and personnel safety.

Credit Hours: 2 Lecture Hours: 32

Course Type: Technical

## EMS-655 Transition to Paramedic Practice

This course will provide a platform for the student to apply cognitive, psychomotor, and affective skills to actual practice during a field internship. This course will also include comprehensive psychomotor exercises in a lab setting to prepare the paramedic student for national certification.

Credit Hours: 4 Lab Hours: 32 Co-op Hours: 192

Prerequisite(s): Minimum grade of C- in EMS-546.

Course Type: Technical

## EMS-668 Special Considerations for the Paramedic

This course provides a foundation for the paramedic in the assessment and management of patients who require special considerations.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Course Type: Technical

## EMS-674 Cardiology for the Paramedic

Cardiology for the Paramedic will focus on assessing the prehospital cardiac patient, interpreting electrocardiograms, and formulating treatment regimens for these patients.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Course Type: Technical

## EMS-678 Traumatic Emergencies for the Paramedic

Traumatic Emergencies for the Paramedic explores the science of traumatic injuries, their detection and treatment. Major topics include: soft tissue, shock, hard tissue, nervous system, and internal injuries.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## EMS-688 Field Experience for the Paramedic

This course enhances learning through the practice of paramedicine in a field environment and through experiences with actual patients under the supervision of preceptors. It is required prior to the paramedic field internship/capstone.

EMS-541 with minimum grade of C-.

Credit Hours: 1 Co-op Hours: 64

Course Type: Technical

## EMS-856 Management of Emergency Medical Services

This course is for students interested in the practice and principles of Emergency Medical Services (EMS) systems management and the processes that contribute to the effectiveness of day-to-day operations within an EMS organization. This course introduces the EMS professional to topics that include government structure, strategic planning, injury prevention, risk management and safety, customer service, human resources management, financial management, fleet management, career development, quality management, data collection and research, labor relations, and special operations.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## EMS-900 Education in EMS

This course is for students interested in Emergency Medical Services (EMS) education. This course introduces the EMS professional to the education system as it relates to EMS education. Students explore issues in curriculum development, teaching, program direction, and development. Successful completion of this course is required for EMS instructor endorsement in Iowa.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

# ENG: English Composition

## ENG-060 College Preparatory Writing I

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.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Appropriate placement scores or equivalent.

Course Type: Developmental

## ENG-061 College Preparatory Writing II

This course encourages students to improve their critical thinking skills, reading comprehension, and writing proficiency for inquiry, learning, thinking, and communication. Students will read, discuss, and respond to a variety of texts of different genres so as to analyze texts and write for different purposes. Students will work individually and collaboratively to produce, revise, and edit written work. Central to the objective of this course is developing a personal writing process: generating ideas, producing multiple drafts, revising, and editing. This course prepares students to advance into their appropriate program writing sequence.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): ENG-060 or appropriate placement scores or equivalent.

Course Type: Developmental

## ENG-071 Academic Literacy I

This course is designed to enable students to apply basic literacy skills for comprehension. Emphasis will be placed on decoding, vocabulary building and sentence construction. This course will include a diagnostic evaluation of student skills and needs to establish individualized instruction plans. This course can be repeated with different content for credit.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Course Type: Developmental

## ENG-081 Academic Literacy II

This course is designed to build upon skills, strategies and information taught in Academic Literacy I. This course is designed to enable students to apply literacy skills for comprehension and expression of ideas. Emphasis will be placed on expanding vocabulary to develop comprehension and for use in writing. The course will introduce students to the writing process through sentence and paragraph construction.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Equivalent placement score.

Course Type: Developmental

## ENG-091 Academic Literacy III

This course is designed to build upon skills, strategies and information taught in Academic Literacy II. It will enable students to apply literacy skills to read, comprehend and respond to college level materials. Emphasis will be placed on academic vocabulary to prepare students for subsequent courses. The course will prepare students to produce academic papers using the writing process.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of D in ENG-081 or equivalent placement score.

Course Type: Developmental

## ENG-104 Resources for Composition

This course provides a college-credit composition environment that reinforces the skills necessary for negotiating college writing. It emphasizes reading to comprehend and write about texts. The course addresses audience and textual analysis; citing sources; writing as a recursive process; thesis statement development and support; sentence, paragraph, and essay structure; and editing.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Equivalent placement score.

Course Type: General Education / Transfer

## ENG-105 Composition I

Composition I 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.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Appropriate placement score or equivalent.

Course Type: General Education / Transfer

## ENG-106 Composition II

Composition II aims to review and extend writing principles learned in Composition I to analytical, argumentative, and research-based writing. This course emphasizes critical reading, evaluation, and precise and responsible source citation.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of D- in ENG-105.

Course Type: General Education / Transfer

## ENG-221 Creative Writing

Creative Writing is a beginning course for students interested in writing poetry, short stories, and creative non-fiction. The course will focus on introducing and developing some of the technical skills of the craft, with an emphasis on methods for generating topics and content.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## ENG-230 Creative Writing: Fiction

This course will focus on the study and practice of fiction. The content emphasis is on writing the short story with practice and study of the proper elements of writing. These elements are also applicable to the writing of the novel.

Credit Hours: 3 Lecture Hours: 48

Pre/Co-requisite(s): A minimum grade of D- in ENG-221.

Course Type: General Education / Transfer

## ENG-235 Playwriting and Screenwriting

Playwriting and Screenwriting is a writing workshop that offers students practical experience in the creative process of producing stage-worthy plays and marketable screen plays. Through the study and discussion of published and produced plays, students will learn appropriate techniques for the dramatic form and will use the writing process to apply the techniques to develop and present their own work.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## ENG-924 Honors Project

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. This course can be repeated with different content for credit. This course may be taken for 1–3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## ENG-928 Independent Study

This course provides students with an opportunity to pursue or investigate a topic of interest that does not fit within the framework of regular course offerings. An independent study self-directed learning agreement must be discussed with and submitted to a faculty advisor prior to registration. This course may be repeated for credit with different content. Course can be taken for 1–3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## ENG-949 Special Topics

Special Topics expands the curriculum by allowing students to enroll for up to three credits in a specific course or program area. Subject matter may be an in-depth extension of the particular area and is developed by the teaching faculty to meet unique interests and needs of the students. This course may not duplicate another one already in the catalog. This course may be repeated for credit with different content. This course can be taken for 1–3.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

# ENV: Environmental Science

## ENV-115 Environmental Science

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, and human population pressures as they relate to the environment. As these challenges are examined, possible solutions will be evaluated.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## ENV-116 Environmental Science Lab

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.

Credit Hours: 1 Lab Hours: 32

Pre/Co-requisite(s): ENV-115

Course Type: General Education / Transfer

## ENV-155 Residential Energy Auditing

The Residential Energy Auditing course covers residential energy auditing and associated heating and air-conditioning equipment. The concepts of heat flow, energy audit software, building science, building envelope diagnostics, construction practices, material costs, moisture concerns, proper insulation and air sealing techniques, energy pricing, energy modeling, and residential HVAC systems. Equipment selection, layout, piping techniques, troubleshooting, codes, preventive maintenance, diagnostics, multiple systems, and accessories are also covered.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Course Type: Technical

## ENV-924 Honors Project

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. This course can be repeated with different content for credit. This course may be taken for 1–3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## ENV-928 Independent Study

This course provides students with an opportunity to pursue or investigate a topic of interest that does not fit within the framework of regular course offerings. An independent study self-directed learning agreement must be discussed with and submitted to a faculty advisor prior to registration. This course may be repeated for credit with different content. Course can be taken for 1–3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## ENV-949 Special Topics

Special Topics expands the curriculum by allowing students to enroll for up to three credits in a specific course or program area. Subject matter may be an in-depth extension of the particular area and is developed by the teaching faculty to meet unique interests and needs of the students. This course may not duplicate another one already in the catalog. This course may be repeated for credit with different content. This course can be taken for 1–3.

Credit Hours: 1  Lecture Hours: 16

Course Type: General Education / Transfer

# ESL: English as a Second Language (Non-intensive)

## ESL-005 ESL Reading for Academic Purpose I

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.

Credit Hours: 4 Lecture Hours: 64

Prerequisite(s): Appropriate placement scores or equivalent.

Course Type: Developmental

## ESL-011 ESL Writing for Academic Purpose I

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.

Credit Hours: 4 Lecture Hours: 64

Prerequisite(s): Appropriate placement scores or equivalent.

Course Type: Developmental

## ESL-014 ESL Listening and Speaking for Academic Purpose I

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.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Prerequisite(s): Appropriate placement scores or equivalent.

Course Type: Developmental

## ESL-020 English as a Second Language Lab

This is an individualized lab course for non-native speakers of English. The course provides a variety of tasks to improve English fluency and study skills. Students are given opportunities to become familiar with resources at HCC, expand their vocabulary, and become more fluent in written and spoken English. This course can be used to prepare for other EAP (English for Academic Purposes) courses. It is designed to accommodate students at all levels based on their English proficiency levels and academic needs.

Credit Hours: 2 Lab Hours: 64

Prerequisite(s): Instructor approval.

Course Type: Developmental

## ESL-083 ESL Writing for Academic Purpose II

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.

Credit Hours: 4 Lecture Hours: 64

Prerequisite(s): ESL-011, or appropriate placement scores, or equivalent.

Course Type: Developmental

## ESL-084 ESL Reading for Academic Purpose II

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.

Credit Hours: 4 Lecture Hours: 64

Prerequisite(s): ESL-005, or appropriate placement scores, or equivalent.

Course Type: Developmental

## ESL-089 ESL Listening and Speaking for Academic Purpose II

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.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Prerequisite(s): ESL-014, or appropriate placement scores, or equivalent.

Course Type: Developmental

# FIN: Finance

## FIN-121 Personal Finance

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

# FIR: Fire Science

## FIR-124 Building Construction

This course provides the components of building construction that relate to fire and life safety. The focus of this course is on firefighter safety. The elements of construction and design of structures are shown to be key factors when inspecting buildings, preplanning fire operations, and operating at emergencies.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## FIR-127 Fire Behavior and Combustion

This course explores the theories and fundamentals of how and why fires start, spread, and how they are controlled.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## FIR-130 Fire Prevention

This course provides fundamental information regarding the history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use of fire codes, identification and correction of fire hazards, and the relationships of fire prevention with built-in fire protection systems, fire investigation, and fire and life-safety education.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## FIR-139 Fire Fighter I

After completing the course the student will have met the sections required for a Firefighter I in the NFPA® 1001, Standard for Fire Fighter Professional Qualifications, and the requirements for National Fire Protection Association's (NFPA) 472, Standard for Professional Competence of Responders to Hazardous Materials Incidents for the for the Awareness and Operational Levels.

Credit Hours: 4 Lecture Hours: 16 Lab Hours: 96

Course Type: Technical

## FIR-145 Strategy and Tactics

This course provides an in-depth analysis of the principles of fire control through utilization of personnel, equipment, and extinguishing agents on the fire ground.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## FIR-149 Fire Protection Hydraulics and Water Supply

This course provides a foundation of theoretical knowledge in order to understand the principles of the use of water in fire protection and to apply hydraulic principles to analyze and to solve water supply problems.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## FIR-152 Fire Protection Systems

This course provides information relating to the features of design and operation of fire alarm systems, water-based fire suppression systems, special fire hazard suppression systems, water supply for fire protection, and portable extinguishers.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## FIR-158 Fire Officer I

This course is designed to meet NFPA 1021, Standard for Fire Officer Professional Qualities, for Fire Officer I. Throughout this course, students will participate in various classroom activities and exercises designed to reinforce the lectures. Topics will include the company officer's role, effective communications, management of resources, leadership, personnel safety, fire prevention, and investigation and planning. Students will be required to complete a class project that will be due within 2 months after conclusion of the course.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of C- in FIR-139.

Course Type: Technical

## FIR-160 Fire Inspector I

This course is designed to provide a basic understanding of fire prevention and fire inspection efforts. Students will develop a basic understanding of fire prevention; administration of codes and standards; impact of fire behavior on buildings; building construction; fire detection and protection systems; identification and correct of hazards; and field inspections.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in FIR-124.

Course Type: Technical

## FIR-200 Occupational Safety/Health in Emergency Services

This course introduces the basic concepts of occupational health and safety as it relates to emergency service organizations. Topics include risk evaluation and control procedures for fire stations, training sites, emergency vehicles, and emergency situations involving fire, EMS, hazardous materials, and technical rescue. Upon completion of this course, students should be able to establish and manage a safety program in an emergency service organization.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## FIR-213 Principles of Emergency Services

This course provides an overview to fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection/service; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## FIR-214 Legal Aspects of Emergency Services

This course introduces the Federal, State, and local laws that regulate emergency services, national standards influencing emergency services, standard of care, tort, liability, and a review of relevant court cases.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## FIR-235 Fire Investigation I

This course is intended to provide the student with the fundamentals and technical knowledge needed for proper fire scene interpretations, including recognizing and conducting origin and cause, preservation of evidence and documentation, scene security, motives of the fire-setter, and types of fire causes.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## FIR-236 Fire Investigation II

This course is intended to provide the student with advance technical knowledge on rule of law, fire scene analysis, fire behavior, evidence collection and preservation, scene documentation, case preparation and testifying.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of C- in FIR-235.

Course Type: Technical

## FIR-291 Fire Fighter II Certification

After completing the course the student will have met the sections required for a Firefighter II in the NFPA® 1001, 2013 edition, Standard for Fire Fighter Professional Qualifications. Students who successfully complete the certification process will be certified as a Firefighter II.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in FIR-139.

Course Type: Technical

## FIR-300 Principles of Fire and EMS Administration

This course introduces the student to the organization and management of a fire and emergency services department and the relationship of government agencies to the fire service. Emphasis is placed on fire and emergency service, ethics, and leadership from the perspective of the company officer.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of C- in FIR-213.

Course Type: Technical

## FIR-322 Hazardous Materials: Operations Level

Hazardous Materials Operations level follows the requirements of NFPA 472 for the standard for competence of responders to hazardous materials/weapons of mass destruction incidents.

Credit Hours: 1 Lecture Hours: 16

Prerequisite(s): Minimum grade of C- in FIR-139.

Course Type: Technical

## FIR-335 Fire Instructor I

This course will focus on the presentation skills that new instructors need to deliver prepared lesson plans. Upon successful completion of this course, students will be eligible to attempt the State of Iowa Fire Instructor I certification exam.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of C- in FIR-139.

Course Type: Technical

## FIR-400 Emergency Safety and Survival

This course introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavior change throughout the emergency services.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## FIR-655 Fire Science Capstone

Students who have completed all required courses will complete a field internship with an approved Fire Department during this course.

Credit Hours: 2 Co-op Hours: 128

Prerequisite(s): Minimum grade of C- in FIR-291.

Course Type: Technical

# FLF: Foreign Language — French

## FLF-145 French I

This course is an introduction to the basic vocabulary and key structures of the French language. The course will help students develop the four basic skills of listening, speaking, reading, and writing and will provide the beginning steps toward the acquisition of the French language. The course also focuses on making the student more culturally aware.

Credit Hours: 5  Lecture Hours: 80

Course Type: General Education / Transfer

## FLF-245 French II

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.

Credit Hours: 5  Lecture Hours: 80

Prerequisite(s): FLF-145

Course Type: General Education / Transfer

# FLS: Foreign Language — Spanish

## FLS-128 Conversational Spanish

Elementary speaking skills used in everyday conversations. Progresses toward the ability to converse in more varied and complex settings. Not for students who plan to major in foreign language.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## FLS-131 Elementary Spanish I

This course is student-centered and introduces the four phases of the Spanish language: speaking, listening, reading, and writing. Concepts of vocabulary and grammar are introduced to develop a low beginner's level of the Spanish language. Cultural and geographic aspects of the Spanish-speaking world will introduce traditions and customs.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## FLS-132 Elementary Spanish II

This course is a continuation of Elementary Spanish I and will use the communicative approach to expand basic language skills for comprehension of spoken and written Spanish. Students will be exposed to activities involving cultural diversity of the Spanish-speaking people.

Minimum grade of C- in FLS-131.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## FLS-231 Intermediate Spanish I

This course reviews essential grammatical elements in the language and introduces new topics as a continuation of the first year of Spanish. Instruction will enable learners to further develop proficiency in speaking, listening, writing, reading, and cultural understanding of Spanish-speaking countries.

Minimum grade of C- in FLS-132.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## FLS-232 Intermediate Spanish II

This course promotes further linguistic development as a continuation of Intermediate Spanish I. Instruction will expand nuances of the Spanish culture while increasing grammatical proficiency and spontaneous vocabulary usage.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of C- in FLS-231.

Course Type: General Education / Transfer

# GEO: Geography

## GEO-121 World Regional Geography

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## GEO-131 Physical Geography

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. This 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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## GEO-132 Physical Geography Lab

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.

Credit Hours: 1 Lab Hours: 32

Pre/Co-requisite(s): GEO-131.

Course Type: General Education / Transfer

# GRA: Graphic Design

## GRA-105 Drawing and Composition

This course provides students with the experience of creating hand drawn art using a variety of drawing mediums, tools and techniques. Emphasis is placed on the fundamentals of drawing, artistic expression, artistic perception, visual organization, and composition. Articulating viable design concepts and solutions for common graphic design problems through drawing will be presented.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Course Type: Technical

## GRA-124 Electronic Illustration

This course provides students with the experience of creating vector graphics for print media. Emphasis is placed on rendering digital artwork using Adobe Illustrator. Various 2D and 3D illustration drawing techniques along with creating intricate vector type and type effects will be presented.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Prerequisite(s): GRA-133

Course Type: Technical

## GRA-133 Desktop Publishing

This course provides students with the experience of producing and preparing various types of page layout and design formats for print media. Emphasis is placed on building print ready publications using Adobe InDesign. Desktop computer setup, color management, project management, and printing technologies will be presented.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Course Type: Technical

## GRA-142 Graphic Imaging

This course provides students with the experience of producing and preparing raster graphics for print media. Emphasis is placed on generating print quality photographic imagery using Adobe Photoshop. Image acquisition, color management, color correction, retouching, extracting, layering, compositing, and painting techniques along with creating raster type effects will be presented.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Prerequisite(s): GRA-133

Course Type: Technical

## GRA-160 Interactive Multimedia

This course provides students with the experience of delivering dynamic content to a consumer. Emphasis is placed on producing interactive media via visual storytelling, personalized content, layered information, and/or two-way interaction platforms. An introduction to presentation, animation, dynamic pdf, data merge, e-mail newsletter, and augmented reality software will be presented.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D in GRA-124, and GRA-133, and GRA-142.

Course Type: Technical

## GRA-162 Web Page Graphics

This course provides students with the experience of producing and preparing raster and vector graphics for screen display. Emphasis is placed on generating quality website graphics using Adobe Photoshop, Adobe Illustrator, and other emerging technologies. Incorporating, sizing, positioning, and styling responsive high-density web page graphics into a website will be presented.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D in GRA-124 and GRA-142.

Course Type: Technical

## GRA-196 Design and Layout I

This course provides students with the experience of designing single page layout formats for print media. Emphasis is placed on making effective design and layout decisions to visually communicate information to a targeted audience. An introduction to the Graphic Design profession, design process, elements of design, principles of design, and typography will be presented.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Pre/Co-requisite(s): A minimum grade of D- in GRA-133.

Course Type: Technical

## GRA-197 Design and Layout II

This course provides students with the experience of designing single-page double-sided multi-panel print publications. Emphasis is placed on projects such as brochure, leaflet, pamphlet, folder, album cover, and/or dust jacket design and layout. An introduction to spot color, layout grids, folds, die cuts, single-page-multi-panel construction, and duplex printing will be presented.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Prerequisite(s): Minimum grade of D in GRA-196 and GRA-133.

Course Type: Technical

## GRA-205 Design and Layout III

This course provides students with the experience of designing brand identity elements and multi-page print publications. Emphasis is placed on projects such as logo, business card, letterhead, style guide, newsletter, magazine, and/or catalog design and layout. An introduction to signature construction, style sheets, auto page numbering, finishing, and binding will be presented.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Prerequisite(s): Minimum grade of D in GRA-124, and GRA-197, and GRA-142.

Course Type: Technical

## GRA-206 Advanced Design and Layout

This course provides students with the knowledge and experiences needed to design an effective advertisement used to promote a product, service, or event. Emphasis is placed on advertising and advertisement formats and design for print media. Digital visual advertising media will be discussed.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Prerequisite(s): Minimum grade of D in GRA-205.

Course Type: Technical

## GRA-221 Principles of Illustration

This course provides students with the experience of creating hand drawn illustration art using a variety of mediums, tools and techniques. Emphasis is placed on producing illustrations that will clarify, enhance, illuminate, or demonstrate the message of written text. Illustration approaches and Illustrating for various types of publications will be discussed.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D in GRA-105 or ART-133 and ART-134.

Course Type: Technical

## GRA-232 Photo Direction

This course provides students with the experience of directing a photographer during a commercial photo shoot. Emphasis is placed on communication between a graphic designer and commercial photographer. An introduction to the basics of digital photography, photography studio setup and lighting, digital camera operation, and still photography for advertising design will be presented.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## GRA-238 Web Design and Layout

This course provides students with the experience of designing and developing a static Website. Emphasis is placed on making effective web design and layout decisions that comply with current web development standards. An introduction to the web design process, HTML and CSS programming languages, search engine optimization, and website hosting will be presented.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Course Type: Technical

## GRA-239 CMS Web Design

This course provides students with the experience of designing and developing a dynamic Website. Emphasis is placed on utilizing open source Web Content Management System (CMS) software to build a website. CMS installation, page and post construction, navigation deployment, plugins, widgets, theme design, and site administration will be presented.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D in GRA-238.

Course Type: Technical

## GRA-290 Portfolio Preparation

This course provides students with the knowledge and experiences needed to find gainful employment in a graphic design and web design related occupation. Emphasis is placed on developing a quality resume, portfolio development, job search strategies, and interviewing skills.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D in GRA-205.

Course Type: Technical

## GRA-924 Honors Project

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. This course can be repeated with different content for credit.

Can be taken for 1 – 3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## GRA-928 Independent Study

This course provides students with an opportunity to pursue or investigate a topic of interest that does not fit within the framework of regular course offerings. An independent study self-directed learning agreement must be discussed with and submitted to a faculty advisor prior to registration. This course can be repeated with different content for credit.

Credit Hours: 1 Lab Hours: 32

Course Type: Technical

## GRA-932 Internship

This course provides students with an opportunity to pursue career-related work experience. Internships are on-site and under the direction of an experienced professional. An internship learning agreement must be discussed with and submitted to a faculty advisor prior to registration. This course can be repeated with different content for credit.

Credit Hours: 1 Co-op Hours: 64

Course Type: Technical

## GRA-949 Special Topics

This course provides students with an opportunity to earn credit for specialized study or project under the supervision of a faculty member. The topic of study may not duplicate any topic listed within any active program course. This course can be repeated with different content for credit.

Credit Hours: 1 Lecture Hours: 16

Course Type: Technical

# HCM: Hospitality, Culinary Arts, and Management

## HCM-205 Dinner and Front of the House

This is a capstone, project-driven course where all of the students will complete the entire planning process and execution of a formal dinner event.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Course Type: Technical

## HCM-240 Menu Planning and Design

This course applies the principles of menu planning and layout to the development of menus for a variety of types of facilities and service. The course will also examine the kitchen design, and facility layout.

Credit Hours: 2 Lecture Hours: 32

Course Type: Technical

## HCM-242 Event Planning and Customer Service

This course will cover all aspects of event planning and customer service relating to the restaurant and hospitality fields. Student will engage in a hands on learning experience of dealing with real life customers and planning events such as company parties, graduations, and wedding receptions.

Credit Hours: 2 Lecture Hours: 32

Course Type: Technical

## HCM-249 A la Carte Cooking Lab

A la Carte Cooking Lab introduces students to line cooking skills for fine dining as well as time budgeting and management. Students work in stations which include salads, broiler, sauté, expeditor, and preparation. Students plan and prepare upscale theme menus. (0/12)

Credit Hours: 4 Lecture Hours: 16 Lab Hours: 96

Course Type: Technical

## HCM-251 Purchasing, Receiving, and Inventory

Studies principles in purchasing, receiving, issuing and inventory management. Emphasizes cost management techniques. Students practice skills in a clinical lab experience supervised by the purchasing manager.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in MAT-772. Minimum grade of D- in HCM-309.

Course Type: Technical

## HCM-309 Hospitality Safety and Sanitation

Studies basic principles of bacteriology, food borne illness, sanitation, workplace safety, personal hygiene, food security, health regulations and inspections. Emphasizes the importance of sanitary equipment and facilities, and pest control. This course includes instruction in preparation for ServSafe Certification and Certified Pool Operator (CPO). Students will complete certification examinations for both areas.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## HCM-336 Event Planning and Customer Service 1

This course will cover all aspects of event planning and customer service relating to the restaurant and hospitality fields. Student will engage in a hands on learning experience of dealing with real life customers and planning events.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Course Type: Technical

## HCM-341 Catering and Banqueting

This course reinforces skills specific to banquet and catering preparation and service. Emphasis is on quality, quantity, setup, timing, service, event planning, and execution of catering and banquet techniques.

Credit Hours: 2 Lecture Hours: 0 Lab Hours: 64

Course Type: Technical

## HCM-593 Restaurant Management

Principles of modern restaurant and food service management is studied. Preparation for effective management through studies in purchasing, storage, inventory, food service equipment, menu design, marketing, and food service operations are stressed. Introduces the principles of modern restaurant and food service management: purchasing, storing, inventory, food service equipment, menu design, restaurant design and food service operations.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Course Type: Technical

## HCM-605 Hotel Administration

A management course that introduces the student to advanced studies of property management, catering, sales, legal aspects, security and maintenance of all departments of the hotel.

Credit Hours: 2 Lecture Hours: 32

Course Type: Technical

## HCM-608 Introduction to Hospitality

Introduction to the food service, lodging, and tourism components of the hospitality industry. Background information, current issues, resume writing, and future challenges in various segments of the industry.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## HCM-905 Hospitality Internship

This course will provide students with an opportunity to gain hands on experience in the hospitality industry. This course can be taken for 3–5 credit hours.

Can be taken for up to 5 credit hours.

Credit Hours: 3 Co-op Hours: 192

Prerequisite(s): Minimum grade of C- in HCM-608 and HCM-605.

Course Type: Technical

# HCR: Heating and Air Conditioning

## HCR-115 Residential Heating Systems

The purpose of this course is to introduce the student to the various types of residential heating systems. Areas and concepts covered include combustion theory, basic air distribution, furnace construction, filters, humidifiers, installation techniques, and maintenance procedures.

Credit Hours: 4 Lecture Hours: 16 Lab Hours: 96

Course Type: Technical

## HCR-137 Hydronic Heating Systems

To provide experiences in the operation, layout, selection, and troubleshooting of residential and light commercial boilers.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## HCR-143 Alternative Heating and Cooling Systems

This course is designed to introduce students to new and alternative air conditioning equipment.

Credit Hours: 4 Lecture Hours: 16 Lab Hours: 96

Course Type: Technical

## HCR-171 Refrigeration

This course focuses on all thing's refrigeration, from small dehumidifiers to large commercial refrigeration. In this course the students will also study for and take the EPA 608 refrigeration licensing exam.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Course Type: Technical

## HCR-181 Introduction to HVACR

The HVACR 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 HVACR systems with respect to installation, components, and characteristics.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Course Type: Technical

## HCR-200 Manual J and D HVAC Design

The Manual J and Manual D Residential HVAC Design course will provide students with the necessary skills to analyze a building's heating and cooling loads and design appropriate ductwork systems. Students will begin the process using manual worksheets and then finish by using Manual J and Manual D software programs.

Credit Hours: 1 Lecture Hours: 16

Prerequisite(s): Minimum grade of C- in CON-102.

Course Type: Technical

## HCR-204 Principles of Air Conditioning

To provide a working knowledge of electrical controls, sealed system components, troubleshooting, and maintenance on air conditioners.

Credit Hours: 4 Lecture Hours: 16 Lab Hours: 96

Course Type: Technical

## HCR-264 Applied Practices

This course provides the students a capstone opportunity to apply the theory to practice on the equipment in the HVACR lab to gain entry level proficiency in service and repair.

Credit Hours: 3 Lab Hours: 96

Course Type: Technical

## HCR-429 HVAC App Controls with Automated Systems

This course is a study of electronic controls and circuitry systems for H.V.A.C.R.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Course Type: Technical

## HCR-455 Applied Electricity for HVACR

This course presents the basic electrical characteristics, reading and developing circuit graphics, test equipment, controls and circuit application.

Credit Hours: 4 Lecture Hours: 16 Lab Hours: 96

Course Type: Technical

## HCR-456 Applied Electricity II

This course expands on the basic electrical knowledge gained in HCR-455 and introduces students to electrical troubleshooting.

Credit Hours: 4 Lecture Hours: 16 Lab Hours: 96

Course Type: Technical

## HCR-933 Internship — Air Conditioning

This course provides on-the-job training giving the student experience and practical application of the competencies learned in the air conditioning portion of the Air Conditioning, Heating, and Refrigeration Program. The internship is coordinated by the college instructor and supervised by an industry professional at the work site.

This course can be taken for 1–4 credits, 64–256 co-op hours.

Credit Hours: 1 Co-op Hours: 64

Course Type: Technical

# HEQ: Heavy Equipment

## HEQ-109 All Terrain Lifts Operation

The All-Terrain Lifts Operation Course will give students access to the hands-on operation of all-terrain lifts and platforms used in the construction industry. Students will be able to develop the motor skills and competencies necessary to safely operate equipment in all sorts of workplace settings and environments. Students will gain practice in operating by completing exercises in moving materials, loading and unloading materials from trucks, and operating the work platform safely in all types of terrain and jobsite conditions. Students will demonstrate proper inspection, start up, operating and shut down procedures on a daily basis. Students will obtain an OSHA Certificate in Fork Lift Operation as part of this program.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Prerequisite(s): Minimum grade of D in CON-108 or HEQ-203.

Course Type: Technical

## HEQ-110 Support Equipment Operation

The Support Equipment Operation Course will introduce students to various types of mechanized machines and devices used on jobsites. Types of equipment include plate compactors, tampers, portable air compressors, jack hammers, concrete buggies, power trowels, concrete saws, and others. Students will gain practice in the safe operation and care of these types of machines.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Prerequisite(s): Minimum grade of D in CON-108 or HEQ-203.

Course Type: Technical

## HEQ-116 Basic Construction Equipment Operation

The Basic Construction Equipment Operation Course will provide students with the knowledge of basic requirements and skillsets necessary to become entry level equipment operators in the construction industry. Students will explore the various types of equipment and unique operating characteristics of each. Students will use Construction Equipment Simulators to develop basic operating skills.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D in CON-108 or HEQ-203.

Course Type: Technical

## HEQ-118 Routine Service and Repair

This course will assist students in the basic knowledge and skills necessary to perform routine maintenance and repairs on different types of construction equipment. Individual component and systems service intervals will be discussed and analyzed. Students will receive practice in fluid and filter replacing as well as recognizing, troubleshooting, replacing and repairing defective and worn components and parts. The need for ongoing operator input and involvement in the maintenance process will be explored

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Prerequisite(s): Minimum grade of D in HEQ-203.

Course Type: Technical

## HEQ-190 Introduction to Utility Equipment Operations

The Utility Equipment Operations Course will introduce students to the machines used in the residential construction industry when working in close proximity to buildings, underground utilities and job-sites with limited operational space. Pre-operation inspections, methods of loading and securing equipment for transport and safe operations will also be discussed.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in CON-108.

Course Type: Technical

## HEQ-200 Utility Equipment Operations

The Utility Equipment Operations Course will allow students to operate machines used in the residential construction industry when working in close proximity to buildings, underground utilities and job-sites with limited operational space. Pre-operation inspections, methods of loading and securing equipment for transport and safe operations will also be discussed.

Credit Hours: 1 Lecture Hours: 0 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in HEQ-190.

Course Type: Technical

## HEQ-203 Jobsite Safety

The Jobsite Safety course will introduce students to numerous requirements, hazards, certifications, personal protective equipment, and machine mounted safety equipment, which relate to operating equipment and being present on various work locations in the construction industry. Students will be introduced to the National OSHA Safety Standards required of the general construction industry. Students will complete the classroom and hands on Laser Safety Training portion of the OSHA Regulations. Students will practice the proper techniques using and inspecting personal protective equipment required in the construction field. Upon successful completion of this course students will receive the 10-hour OSHA General Construction Certificate and the OSHA Laser Safety Certificate.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Course Type: Technical

## HEQ-208 Equipment Operation I

The Equipment Operation I Course will introduce students to preoperational inspection, and basic safe operation of various machines used by the construction industry. Experience and skills will be developed using track and rubber wheeled equipment to complete exercises in moving materials, grading, leveling, trenching, and loading trucks, Students will demonstrate proper inspection, start up, operating and shut down procedures on a daily basis. The use of PPE and safe professional operating procedures will be followed daily.

Credit Hours: 5 Lecture Hours: 16 Lab Hours: 128

Prerequisite(s): Minimum grade of D in HEQ-203.

Pre/Co-requisite(s): Minimum grade of D in HEQ-116.

Course Type: Technical

## HEQ-209 Equipment Operation II

The Equipment Operation II Course will assist students in using skills developed to layout and complete earth moving projects in a real world environment. Students will review site plans, obtain permits, identify water runoff paths, survey, place grade stakes, use the One Call Service, calculate material needs, and other requirements to prepare a jobsite for excavation. Students will coordinate the use of machines and equipment needed for the projects. The use of PPE and safe professional operating procedures will be followed daily.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D in HEQ-116, and HEQ-203, and HEQ-208.

Course Type: Technical

## HEQ-210 Equipment Operation III

The Equipment Operation III Course will use student skills developed in prior coursework to complete projects using various equipment. Students will build on prior skills to complete more advanced and technical maneuvers. Finish grading, seeding, and placement of permanent erosion barriers will be practiced. Focus will be on operating to industry professional standards and abilities to prepare students for employment.

Credit Hours: 4 Lab Hours: 128

Prerequisite(s): Minimum grade of D in HEQ-116, and HEQ-203, and HEQ-208.

Pre/Co-requisite(s): Minimum grade of D in HEQ-209.

Course Type: Technical

## HEQ-214 Equipment Maintenance

This course will assist students in the basic knowledge and skills necessary to perform maintenance and repair components and systems found on construction equipment. Individual component and systems repair will be discussed and practiced. Students will gain hands-on practice in testing and repairing construction equipment components. Basic welding and flame cutting will be introduced.

Credit Hours: 5 Lecture Hours: 32 Lab Hours: 96

Prerequisite(s): Minimum grade of D in HEQ-203.

Course Type: Technical

## HEQ-907 Workplace Experience

This course provides students with opportunities to gain on-the-job experience in the construction industry. Students will gain experience and appreciation of qualities and skills needed for success in the equipment operating field. Coordination and guidance will be provided by department instructors.

Credit Hours: 5 Co-op Hours: 320

Prerequisite(s): Minimum grade of D in HEQ-116, and HEQ-118, and HEQ-201, and HEQ-203, and HEQ-208, and HEQ-209, and HEQ-210.

Pre/Co-requisite(s): Minimum grade of D in HEQ-109, and HEQ-110, and HEQ-214.

Course Type: Technical

# HIS: History

## HIS-117 Western Civilization I: Ancient and Medieval

Western Civilization I 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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## HIS-118 Western Civilization II: Early Modern

Western Civilization II 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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## HIS-119 Western Civilization III: The Modern Period

Western Civilization III 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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## HIS-133 A History of the World Through Pandemic Diseases

Pandemic diseases, such as COVID-19 are not simply medical events. Pandemic diseases, diseases like The Black Death, Smallpox, Cholera, AIDS, and Ebola are world historic events that produce significant and lasting global, cultural, social, and economic consequences. Using both primary and secondary materials, students will investigate the medical and social dimensions of epidemics within and between different regions of the world. In addition to addressing the vulnerabilities and inequalities that facilitated the spread of these diseases, the course will also examine the ways in which people sought to ameliorate, manage, and recover from these catastrophic events.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## HIS-151 U.S. History to 1877

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## HIS-152 U.S. History Since 1877

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## HIS-201 Iowa History

This history course is a survey of social, political, economic, and cultural developments in Iowa from prehistoric times to the present.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## HIS-204 Rock to Hip Hop — A History

This introductory course is a study of the evolution of Rock & Roll as well as other popular genres from the 1950’s to the present and how historical events impacted the music. This musical history will be traced from its fusion of African-American, white, and Latin music traditions in America to its present state as an internationally diverse musical style. The course will examine the historical relationship between the music of the period and political and social trends as well as events of the era.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## HIS-251 U.S. History 1945 to Present

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## HIS-257 African American History

This course examines the experiences of African-American society in the United States from origins in Africa to the present.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## HIS-277 History of Women in the U.S.

This course explores U.S. history from the perspective of women. Topics include women’s roles, contributions, and challenges in political, economic, familial, religious, and social life. Central to the course is the intersection of gender with race, class and other social identities in shaping the diverse historical experiences of women. Also key is the influence of women on American intellectual thought, and their enhanced participation in electoral politics.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## HIS-924 Honors Project

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. This course can be repeated with different content for credit.

May be taken for up to 3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## HIS-928 Independent Study

This course provides students with an opportunity to pursue or investigate a topic of interest that does not fit within the framework of regular course offerings. An independent study self-directed learning agreement must be discussed with and submitted to a faculty advisor prior to registration. This course may be repeated for credit with different content. Course can be taken for 1–3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## HIS-949 Special Topics

Special Topics expands the curriculum by allowing students to enroll for up to three credits in a specific course or program area. Subject matter may be an in-depth extension of the particular area and is developed by the teaching faculty to meet unique interests and needs of the students. This course may not duplicate another one already in the catalog. This course may be repeated for credit with different content. Can be taken for 1–3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

# HIT: Health Information Technology

## HIT-125 Essentials of Health Records

This course familiarizes students with the origin, uses, content and format of health records, including both paper and electronic health records. It covers required standards for health records, organization of records, and analysis of health record data.

Credit Hours: 2 Lecture Hours: 32

Course Type: Technical

## HIT-215 Introduction to CPT

Introduces the use of the CPT classification system with emphasis on coding in the physician's office for reimbursement purposes.

Credit Hours: 2 Lecture Hours: 32

Pre/Co-requisite(s): Minimum grade of C- in HSC-116.

Course Type: Technical

## HIT-240 Advanced Coding and Classification

Enables students to accurately apply more advanced ICD-CM codes to diseases and procedures in compliance with reimbursement and prospective payment system guidelines with use of coding resources.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of D- in HIT-250.

Course Type: Technical

## HIT-250 Coding I

This course introduces the concepts necessary for entry-level coding of diseases, injuries, and hospital procedures.

Credit Hours: 3 Lecture Hours: 48

Pre/Co-requisite(s): Minimum grade of C- in HSC-116.

Course Type: Technical

## HIT-280 CPT-4 Coding

Continues more complex concepts of procedural coding utilizing the Current Procedural Terminology, 4th Edition (CPT-4) classification system. Includes practical application of coding outpatient/ambulatory records.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of D- in HIT-215.

Course Type: Technical

## HIT-290 Reimbursement Methods

During this course, you will examine reimbursement methodologies, including prospective payment, utilized in a variety of health care settings. You will explore data quality for optimal reimbursement, data auditing, and compliance processes. You will also be introduced to billing procedures and requirements for claims submissions.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## HIT-352 Health Information Systems

Course will examine the development of the electronic health record in the management of health care. Explores common computer and networking terminology and guidelines for selection of and security implementation in the EHR.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## HIT-450 Health Statistics

This course covers the collection, analysis, verification and display of health statistics. Students will learn uses for health statistics, basic statistical principles, commonly computed rates, vital health statistics, uniform reporting requirements, and research fundamentals.

Credit Hours: 2 Lecture Hours: 32

Course Type: Technical

## HIT-510 Coding Certification Review

The nature of this revision is to align the student learning outcomes to the new format.

Credit Hours: 2 Lecture Hours: 32

Course Type: Technical

# HSC: Health Science

## HSC-108 Introduction to Health Professions

This course introduces the student to the healthcare system and provides an opportunity to explore a wide variety of health careers/professions. Students will explore ethical and legal responsibilities within the healthcare system including expectations for professional behavior. This course will allow for certification in common healthcare requirements.

Credit Hours: 2 Lecture Hours: 32

Course Type: Technical

## HSC-113 Medical Terminology

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 in relation to pathological conditions, tests, and procedures. Common medical abbreviations will also be discussed for each system.

Credit Hours: 2 Lecture Hours: 32

Course Type: Technical

## HSC-116 Beginning Medical Terminology

This course introduces the concepts necessary for building a basic medical vocabulary and studies the anatomy and physiology, common diseases and surgeries of the body systems.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Course Type: Technical

## HSC-124 Advanced Medical Terminology

The course continues to build a medical vocabulary through the study of anatomy and physiology, common diseases and surgeries of the body systems.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Prerequisite(s): Minimum grade of C- in HSC-116.

Course Type: Technical

## HSC-168 Nurse Aide

Required to meet the training requirements for nurse aides in long-term care facilities. Emphasizes achievement of a basic level of knowledge and demonstration of skills to provide safe and effective resident care. Integrates 30 hours of clinical, outside of normal class times, at a long-term care facility under the supervision of an RN. Requires your own transportation.

Credit Hours: 3.5 Lecture Hours: 32 Lab Hours: 16 Clinic Hours: 48

Course Type: Technical

## HSC-217 Introduction to Pathology

Introduces the study of pathology. Includes description, etiology, signs and symptoms, diagnostic procedures, current medical treatment, progress and prevention of disease in each body system, with emphasis on basic concepts and terminology.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

# HSV: Human Services

## HSV-109 Introduction to Human Services

Introduces the value base of human services and evaluates problems that can be encountered in working with people when these values conflict with client needs. Introduces the framework of human services approach, specifically information of individual values, systems analysis, problem solving and conflict resolution. Concepts of systems analysis are accompanied by application of these concepts to problems.

Credit Hours: 3  Lecture Hours: 48

Course Type: General Education / Transfer

# HUM: Humanities

## HUM-141 J.R.R. Tolkien: Mythology and Methodology

This course will explore the major fiction and non-fiction works of Tolkien, paying special attention to themes drawn from the humanities. This course will be interdisciplinary and draw upon a range of liberal arts methodologies and specializations in its presentation.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## HUM-924 Honors Project

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. This course can be repeated with different content for credit.

May be taken for 1 – 3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## HUM-926 Honors Seminar

The topic of the seminar is selected by a faculty member and would change from semester to semester. This course can be repeated with different content for credit.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## HUM-928 Independent Study

This course provides students with an opportunity to pursue or investigate a topic of interest that does not fit within the framework of regular course offerings. An independent study self-directed learning agreement must be discussed with and submitted to a faculty advisor prior to registration. This course may be repeated for credit with different content. Course can be taken for 1–3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## HUM-949 Special Topics

This course offers a specialized study or project under the supervision of a faculty member. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. This course may be repeated for credit with different content. This course may be taken for 1-3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

# IND: Industrial Technology

## IND-100 Basic Mechanical Systems

This course provides the student with introductory knowledge, skills in use of tools, and components by mechanics.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Course Type: Technical

## IND-111 Industrial Safety Mechanical Systems

This course provides students with information required to understand industrial safety issues and procedures. Studies include job hazard awareness, lock-out/tag-out, egress, fire extinguishers, OSHA 10, material handling, and Globally Harmonized System of Classification and Labeling of Chemicals (SDS Sheets).

Credit Hours: 1 Lecture Hours: 16

Course Type: Technical

## IND-153 Industrial Mechanics

This course will introduce the skills necessary to troubleshoot, maintain, and repair mechanical power systems, such as mechanical power transmissions systems, couplings and shafts, lubrication on these systems, maintenance and installation of seals and gaskets, and installation and adjustment of clutches and brakes.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## IND-157 Introduction to Computers

This is an introductory course in the use of a personal computer. Students will gain a general understanding of computer hardware and software. Students will be given hands-on experiences with operating system navigation, word processing and spreadsheet software, and industrial applications.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Course Type: Technical

## IND-949 Special Topics

This course is designed for secondary industrial technology educators to develop and enhance knowledge and skills in specific emerging practices, issues, and technical content areas in the manufacturing industry.

May be taken for up to 6 credits.

Credit Hours: 1 Lab Hours: 32

Course Type: Technical

# JOU: Journalism

## JOU-115 Introduction to Journalism

Introduction to Journalism is an overview of the profession. This course will examine the origins and evolution of journalistic principles, including legal and ethical considerations, the role of the free press, and the contemporary state of journalism. This course will also distinguish the unique aspects of writing and publication design in this genre.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## JOU-121 Newswriting and Reporting

Newswriting and Reporting provides students with hands-on experience gathering, organizing, editing, and publishing news stories for multiple media platforms.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of C- in JOU-115.

Course Type: General Education / Transfer

# LIT: Literature

## LIT-101 Introduction to Literature

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.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of C- in RDG-040 and ENG-061. Or appropriate placement scores: Placement Reading 82 and Placement Writing 65.

Course Type: General Education / Transfer

## LIT-133 Minority Voices in U.S. Literature

This course will explore the issues and themes developed in the literature written by minority authors, often underrepresented in the traditional literary canon. We will focus on works by various dispossessed groups, including African-Americans, Asian-Americans, Latinx, Native Americans, Lesbians/Bisexuals/Gays/Transgender Individuals, and Women. Genres to be read will include short stories, poetry, and novels with emphasis on the ideas and issues shared in common by the various silenced groups and the unique perspective of each.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## LIT-142 Major British Writers

This course is an introduction to the study and appreciation of major British writers from the Anglo-Saxon era through the contemporary period. Basic critical approaches are emphasized.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## LIT-145 Shakespeare: Dramatist, Psychologist, Historian

This course will include a study of several plays by William Shakespeare, including tragedies, histories, and 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. It will include discussions of the contributions of Shakespeare to Western civilization and humanity as a whole.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## LIT-160 Short Story/Novel

This course explores the short story and novel as meaningful literary forms, with emphasis on structure and technique. Students will be introduced to the elements of fiction, various literary genres, and their cultural and historical contexts incorporating materials with diverse voices. Students will analyze fiction critically in class discussions and through formal and informal writings.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## LIT-189 Women and Literature

Women and Literature 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.

Credit Hours: 3  Lecture Hours: 48

Course Type: General Education / Transfer

## LIT-191 Iowa Literature and History

This course introduces students to Iowa writers and literature by studying their connection to the history and landscape of the state. Students will read short stories, poetry, fiction, and nonfiction texts to identify major issues in the state's history and literary themes prevalent in writing.

Credit Hours: 3  Lecture Hours: 48

Course Type: General Education / Transfer

## LIT-949 Special Topics

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.

May be taken for up to 3 credits.

Credit Hours: 1  Lecture Hours: 16

Course Type: General Education / Transfer

# MAP: Medical Assistant

## MAP-111 Medical Office Management I

This course provides an introduction to the administrative skills needed for a medical office. Students will learn information management, how to organize and maintain medical records, manage appointments, and perform routine office administration duties. Focus is on the financial aspects of the medical office including essential financial management concepts and procedures, medical office bookkeeping, cash control, accounts payable, accounts receivable, billing and collection procedures. The student will be prepared to work with commercial software, computerized medical records, billing, and patient scheduling. Communication skills are applied to deliver strong customer service. Ethical and legal rules concerning consents and the confidentiality of health information is presented with particular emphasis on the Health Insurance Portability & Accountability Act. Principles of legal liability, contracts, release of medical information, reporting, operation of the legal system and how it relates to the role of the office employee will be presented.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## MAP-117 Medical Office Management II

This course covers advanced medical administrative procedures using insurance and billing software to determine physician reimbursement through accurate claim submission. Topics including maintaining files, entering patient data, inputting insurance, posting transactions, and generating reports. Students will learn how to complete and submit electronic and paper insurance claim forms, perform referrals, and apply the correct procedure and diagnostic codes. This course is designed to teach students to correctly complete the universal Form CMS-1500 (Health Insurance Claim Form) and the coding rules for the Current Procedural Terminology (CPT) , International Classification of Disease, Clinical Modification (ICD-10-CM) and HCPCS level II coding systems (products, supplies, and services not included in the CPT codes, such as ambulance services and durable medical equipment, prosthetics, orthotics, and supplies (DMEPOS) when used outside a provider’s office), and then apply the rules to code patient services, medical billing and insurance claims. A variety of payment systems and other topics of Medicare fraud/abuse, Health Maintenance Organizations (HMOs), Preferred Provider Organizations (PPOs) and patient-centered medical home (PCMH) and other legal acts are also reviewed. Compliance reporting will be addressed.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of C in MAP-111.

Course Type: Technical

## MAP-123 Administrative Medical Office Procedures

Administrative Medical Office Procedures provides the students with the knowledge and skills needed to work with patients, patient records, and manage other administrative responsibilities in the medical office.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of C- HSC-116.

Course Type: Technical

## MAP-132 Medical Transcription

This course continues to build and strengthen skills involving grammar, punctuation, spelling, and use of reference materials by transcribing a variety of medical reports.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Course Type: Technical

## MAP-225 Med Lab Procedures I

This course introduces the role of the medical assistant in performing diagnostic procedures, laboratory techniques, collecting, processing, and testing specimens. Students will demonstrate competency in the theory and practice of bloodborne pathogen standards, OSHA, safety in the laboratory, CLIA government regulations, quality assurance, microscope usage, urinalysis procedures, disinfection and sterilization procedures. Emphasis is on safety, infection prevention, proper patient identification, collecting, handling and labeling of specimens, processing, accessioning, and quality assurance. Point of Care Testing (POCT) for waived laboratory procedures, inventory control and management to efficiently maintain the laboratory are also studied.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Pre/Co-requisite(s): A minimum grade of C in MAP-111 and MAP-342.

Course Type: Technical

## MAP-230 Medical Laboratory Procedures II

This course is an advanced laboratory introduction to medical diagnostic and laboratory techniques and offers skill development in a wide variety of low and moderately complex diagnostic procedures, microscopic and chemical analysis of blood. Students will develop skill in specimen collection on varying age groups and in using a variety of blood collection methods including; vacuum collection devices, syringes, capillary skin puncture, butterfly needles and blood culture. Topics covered will include hematology, body chemistry, microbiology, ABO/Rh test, immunology testing, and blood typing. Specimen collections with specialty examinations and diagnostic tests such as electrocardiograms, pulmonary function and throat cultures will be included.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Prerequisite(s): Minimum grade of C+ in MAP-111, MAP-225, and MAP-342.

Course Type: Technical

## MAP-342 Clinical Assisting I

This course is designed to provide the basic clinical knowledge and skills necessary for the medical assistant to provide care, maintain safety and prevent infection. Maintaining asepsis, managing the clinical environment, basic patient interactions of varying ages, assisting with physical exams and testing will be included. Safe medication administration and knowledge, following all legal considerations, will be expected. This course focuses on diseases frequently diagnosed and treated in the medical office setting; and the associated anatomy and physiology. Diet and nutrition will be introduced with diseases, as applicable.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Prerequisite(s): Minimum grade of C in MAP-111 and MAP-225.

Course Type: Technical

## MAP-343 Clinical Assisting II

This course will provide an understanding of best practices in a medical office setting including infection control, risk management, preparing the patient for and assisting with examinations and treatments, and the management of supplies and equipment. Students will prepare and administer medications via several routes including oral, parenteral (excluding intravenous), transdermal, and inhalation. Emphasis is placed on safe and accurate administration and maintaining federal and state healthcare legislation and regulations. Students will demonstrate therapeutic communication and deliver patient-centered health promotion teaching plans meeting the specific nutritional needs. This course will provide the skills, within the medical assistant scope of practice, to provide first aid and volunteer effectively to respond to a disaster.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Prerequisite(s): Minimum grade of C in MAP-111, and MAP-225, and MAP-342.

Course Type: Technical

## MAP-402 Medical Law and Ethics

Course will provide the student with the legal and ethical implications of practice in a medical setting. Issues covered will include scope of practice, confidentiality, HIPAA privacy and security requirements, legal terms and elements in the delivery of care, ethical guidelines of practice, and legal documentation requirements.

Credit Hours: 2 Lecture Hours: 32

Course Type: Technical

## MAP-511 Pharmacology for the Medical Office

The basic knowledge, understanding, and skills necessary to use common pharmaceutical references and spell commonly used drugs.

Credit Hours: 1 Lecture Hours: 16

Pre/Co-requisite(s): Minimum grade of C- in HSC-116.

Course Type: Technical

## MAP-512 Medical Assisting Pharmacology

This course provides a basic background in the classification and understanding of drugs and their sources, uses and legal implications. This course will also provide discussion on the characteristics of typical drugs, side effects, precautions, interactions, and patient education of each category.

Credit Hours: 2 Lecture Hours: 32

Prerequisite(s): Minimum grade of C in MAP-111, and MAP-225, and MAP-342.

Course Type: Technical

## MAP-841 Medical Assisting Capstone

Within this course, the student will begin the job-seeking process and identify job opportunities. Students will create a personalized resume and cover letter, and successfully participate in mock job interviews. This course will provide students a systematic comprehensive review to prepare for the CMA (AAMA) Certification exam. Students will complete the application for the CMA (AAMA) Certification exam.

Credit Hours: 2 Lecture Hours: 32

Prerequisite(s): Minimum grade of C+ in MAP-111, and MAP-117, and MAP-225, and MAP-230, and MAP-342, and MAP-343.

Course Type: Technical

## MAP-941 Medical Assistant Practicum

The practicum provides the students the opportunity to apply classroom theory to on the job experiences in a medical facility approved by the Practicum Coordinator. Primary objective is to provide students with a variety of experiences in the administrative, clinical and laboratory areas of an ambulatory care clinic. This opportunity allows the students to enhance communication skills by interacting with physicians, clinic staff and patients. Students are evaluated by the clinic supervisors and the practicum coordinator.

Credit Hours: 3 Co-op Hours: 192

Prerequisite(s): Minimum grade of C+ in MAP-117, and MAP-230, and MAP-343, and PNN-207.

Course Type: Technical

# MAT: Mathematics

## MAT-012 Math Skills

This course is designed for students who have not mastered the basic skills of arithmetic and basic applications. The course can also be individualized to cover different math concepts to meet student needs. This course can be repeated with different content for credit.

Credit Hours: 1 Lab Hours: 32

Course Type: Developmental

## MAT-045 Fundamentals of Math

This course is designed to include the study of arithmetic operations on whole numbers, fractions, and decimals. The topics covered also include percent, ratio, proportions, and strategies for solving application problems.

Credit Hours: 4 Lecture Hours: 64

Prerequisite(s): Appropriate placement scores or equivalent.

Course Type: Developmental

## MAT-048 Preparatory Math for Elementary Algebra

This course is designed to include the study of arithmetic operations on whole numbers, fractions, decimals, and percent. The course also introduces basic algebra concepts, including simplifying and evaluating algebraic expressions and solving simple equations. Topics covered also include strategies for solving application problems, such as working with ratios, proportions, and formulas.

Credit Hours: 4 Lecture Hours: 64

Prerequisite(s): Appropriate placement score.

Course Type: Developmental

## MAT-052 Pre-Algebra

This course is designed to provide a review of basic math operations with whole numbers, integers, fractions, decimals, and percent. It also introduces basic algebra concepts including simplifying and evaluating algebraic expressions, solving simple equations, and applications.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of D in MAT-045 or equivalent placement score.

Course Type: Developmental

## MAT-060 Algebra Essentials

This course is designed to introduce concepts in basic algebra. Topics include real numbers, algebraic expressions, equations in one and two variables, systems of equations and applications, and an introduction to polynomials.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of D in MAT-048, or MAT-052, or equivalent placement score.

Course Type: Developmental

## MAT-063 Elementary Algebra

This course is designed to provide students with an introduction to basic algebra. The topics covered include signed numbers, exponents, algebraic expressions, polynomials, factoring, linear equations and inequalities, systems of equations, graphing, and applications.

Credit Hours: 4 Lecture Hours: 64

Prerequisite(s): Minimum grade of D in MAT-048 or MAT-052.

Course Type: Developmental

## MAT-102 Intermediate Algebra

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.

Credit Hours: 4 Lecture Hours: 64

Prerequisite(s): Minimum grade of C- in MAT-060 or MAT-063. Or equivalent placement score.

Course Type: General Education / Transfer

## MAT-110 Math for Liberal Arts

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.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of D- in MAT-060 or MAT-063. Or equivalent placement score.

Course Type: General Education / Transfer

## MAT-112 Math for Elementary Teachers I

Math for Elementary Teachers I is the first of two mathematics courses for students who want to pursue a major in elementary education or early childhood teacher licensure. This course will use a variety of problem-solving skills while exploring many aspects of the real number system. Algebraic and concrete mathematical models will be incorporated in strategies used to solve problems.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of C- in MAT-060 or MAT-063. Or equivalent placement score.

Course Type: General Education / Transfer

## MAT-118 Math for Elementary Teachers II

This course complements the content of MAT-112 Math for Elementary Teachers I. Emphasis is on problem-solving and applications. Topics include probability, statistics, and algebraic equations and graphs.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of C- in MAT-112.

Course Type: General Education / Transfer

## MAT-121 College Algebra

This course provides an intensified study of algebraic techniques and prepares students for future study in mathematics. The central theme is the concept of functions, their properties, graphs and applications. Functions studied include polynomial, rational, exponential, and logarithmic.

Credit Hours: 4 Lecture Hours: 64

Prerequisite(s): Minimum grade of C- in MAT-102. Or equivalent placement score.

Course Type: General Education / Transfer

## MAT-128 Precalculus

This one-semester pre-calculus course is intended for the student with a solid algebra background who intends to take calculus. It is also beneficial (but not required) for the student to have a background in trigonometry. The course will emphasize functions using an analytical, numerical, and graphical approach. The student will study linear, polynomial, rational, exponential, logarithmic and trigonometric functions along with their applications.

Credit Hours: 4 Lecture Hours: 64

Prerequisite(s): Appropriate Placement Test Scores: ACT Math Score of 25 OR Compass Score of 51-100 in the College Algebra Domain or 31-50 in the Trigonometry Domain.

Course Type: General Education / Transfer

## MAT-134 Trigonometry and Analytic Geometry

The second course of a two-semester pre-calculus sequence. Topics include trigonometry and applications, vectors, analytic geometry, and polar and parametric equations.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of C- in MAT-121. Or equivalent placement score.

Course Type: General Education / Transfer

## MAT-156 Statistics

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.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of C- in MAT-060 or MAT-063. Or equivalent placement score.

Course Type: General Education / Transfer

## MAT-210 Calculus I

The first in a calculus sequence, this course covers topics including functions and their graphs, limits, derivatives, applications of the derivative, and integrals.

Credit Hours: 4 Lecture Hours: 64

Prerequisite(s): Minimum grade of C- in MAT-128 or MAT-134. Or appropriate placement scores: ACT 27; COMPASS TRIGONOMETRY 51-100.

Course Type: General Education / Transfer

## MAT-216 Calculus II

A continuation of MAT-210, this course covers topics including integration techniques, applications of integration, infinite series, conic sections, parametric and polar equations.

Credit Hours: 4 Lecture Hours: 64

Prerequisite(s): Minimum grade of C- in MAT-210.

Course Type: General Education / Transfer

## MAT-219 Calculus III

This course covers topics including integration and differentiation techniques related to vectors, vector-valued functions, functions of several variables, multiple integration, and vector analysis.

Credit Hours: 4 Lecture Hours: 64

Prerequisite(s): Minimum grade of C- in MAT-216

Course Type: General Education / Transfer

## MAT-504 Electronics Math I

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.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Prerequisite(s): Minimum grade of D- in MAT-060 or MAT-063. Or equivalent placement score.

Co-requisite(s): ELT-291.

Course Type: Technical

## MAT-514 Electronics Math II

This course presents logarithms as applied to electronics; number systems for computers, Boolean algebra, mapping and statistics as used in the electronic industry.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Prerequisite(s): MAT-504

Course Type: Technical

## MAT-741 Technical Mathematics I

This course is designed to provide students with the mathematical skills to succeed in technical programs. Topics covered will include algebraic operations, solving linear equations, ratios, proportions, unit conversions, functions, geometry, and introductory trigonometry.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of D- in MAT-060 or MAT-063. Or equivalent placement score.

Course Type: Technical

## MAT-748 Technical Math II

The second of a two-course sequence designed to communicate the mathematics principles, concepts and manipulative skills needed for technical programs. Topics covered will include systems of equations, advanced trigonometry, vectors, polynomials, logarithmic and exponential functions.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of D in MAT-741.

Course Type: Technical

## MAT-764 Math for Welders

This course introduces the basic mathematics principles that are using 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.

Credit Hours: 2 Lecture Hours: 32

Course Type: Technical

## MAT-772 Applied Math

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, introduction to geometry, and applied statistics. Instruction includes use of scientific hand-held calculators and emphasis placed on critical thinking, problem solving skills.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## MAT-924 Honors Project

This course involves in-depth independent research on an approved topic under supervision of a faculty member. Upon project's completion, results will be shared with community of peers and faculty.

May be taken for up to 3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## MAT-928 Independent Study

This course provides students with an opportunity to pursue or investigate a topic of interest that does not fit within the framework of regular course offerings. An independent study self-directed learning agreement must be discussed with and submitted to a faculty advisor prior to registration. This course may be repeated for credit with different content. Course can be taken for 1–3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

# MAT-949 Special Topics

Special Topics expands the curriculum by allowing students to enroll for up to three credits in a specific course or program area. Subject matter may be an in-depth extension of the particular area and is developed by the teaching faculty to meet unique interests and needs of the students. This course may not duplicate another one already in the catalog. This course may be repeated for credit with different content. This course can be taken for 1–3.

Credit Hours: 1  Lecture Hours: 16

Course Type: General Education / Transfer

# MFG: Manufacturing

## MFG-107 Introduction to 3D Modeling

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 and precise machined parts.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Course Type: Technical

## MFG-122 Machine Trade Printreading I

This course provides the student with the necessary knowledge to read and interpret basic prints used in the machining industry. It covers terminology, line-types, and drawing interpretation. First and third angle orthographic projection, dimensioning methods, and tolerancing are the major topics covered.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## MFG-142 Geometric Dimensioning Tolerancing

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.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): MFG-122 or equivalent print reading skills as determined by the instructor.

Course Type: Technical

## MFG-157 Introduction to CNC Programming I

In this course students will create basic programs for CNC mills. Student will use a plain ASCII text editor (like Notepad) to input basic industry standard G and M code programs. Programs are run on verification software to ensure accuracy. Speed and feed calculations, operator notes and start-up lines, mill tooling types and procedures, rectangular coordinates, canned (drill) cycles, and file management are other areas of study.

Credit Hours: 2 Lecture Hours: 32

Course Type: Technical

## MFG-158 Introduction to CNC Programming II

In this course students will create programs for CNC mills using cutter diameter compensation, sub-routines, and sub-programs. Students will also write start-up lines and basic level programs on CNC lathes. Students will use a plain ASCII text editor (like Notepad) to input basic industry standard G and M code programs. Programs are run on verification software to ensure accuracy. Lathe tooling, typical turning procedures, cutter nose radius compensation, and tip orientation are other areas of study.

Credit Hours: 2 Lecture Hours: 32

Pre/Co-requisite(s): A minimum grade of D in MFG-157 and MFG-302.

Course Type: Technical

## MFG-193 Machine Shop Processes

This course is designed to develop basic skills in precision measurement and layout tools, machine operations for lathes, mills, drills and surface grinders.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Course Type: Technical

## MFG-211 Basic Machine Theory

This course presents basic machining processes and concepts necessary to set-up and operate machine shop equipment.

Credit Hours: 2 Lecture Hours: 32

Course Type: Technical

## MFG-214 Advanced Machine Theory

Learn advanced machining processes and concepts used while operating machine shop equipment.

Credit Hours: 2 Lecture Hours: 32

Course Type: Technical

## MFG-222 Machine Operations I

An introductory machining course presenting basic machining operations. Student will perform basic operations on lathes, horizontal + vertical-milling machines, drilling machines, saws, various types of grinders, and precision measuring equipment.

Credit Hours: 4 Lab Hours: 128

Pre/Co-requisite(s): A minimum grade of D in MFG-211.

Course Type: Technical

## MFG-228 Machine Operations II

This is an advanced hands-on machining course.

Credit Hours: 4 Co-op Hours: 128

Course Type: Technical

## MFG-302 CNC Fundamentals

Covers computer numerical control (CNC) as it relates to milling machines, lathes, and related software. Emphasis on machine set-up and operation, inspection of parts, and communication of peripherals.

Credit Hours: 3 Lab Hours: 96

Course Type: Technical

## MFG-309 CNC Programming Theory II

This course teaches mid-level CNC programming including canned/auto cycles, cutter compensation, and using subroutine + sub-programs. Machine capabilities such as mirror imaging, axis rotation, and part size scaling will be discussed. Students will draw basic part prints on our CAD/CAM software. Prints will be dimensioned and part drawings will be extruded into solids.

Credit Hours: 4 Lecture Hours: 64

Prerequisite(s): Minimum grade of D in MFG-157 and MFG-158.

Co-requisite(s): MFG-335

Course Type: Technical

## MFG-320 Computer Aided Machining

Computer-Aided Machining provides an opportunity to study all steps in the computer-aided design and computer-aided manufacturing processes. This includes drawing, dimensioning, creating solids, creating tool-paths, back-plotting, and program correction. Students utilize CAD/CAM software in creating and running functional CNC programs.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## MFG-335 CNC Operations

This course is similar to CNC Fundamentals except students will run Hawkeye's CNC lathes and machining centers individually, rather than in groups to prove individual understanding of CNC machine operation. Manual equipment will be utilized to perform secondary operations. Manual and CMM inspection equipment will also be experienced. Students will back-plot, set-up, and run unproven programs to ensure the student can find and correct CNC program errors.

Credit Hours: 3 Lab Hours: 96

Prerequisite(s): Minimum grade of D- in MFG-157, and MFG-158, and MFG-302.

Course Type: Technical

## MFG-364 Hydraulic Jigs and Fixtures

A course in building using blueprints, knowledge and skills developed in basic machine concepts and operations. Students are required to build and run jigs and fixtures working within the tolerance of the print.

Credit Hours: 4 Lecture Hours: 16 Lab Hours: 96

Prerequisite(s): Minimum grade of D in MFG-214 and MFG-228.

Course Type: Technical

## MFG-365 General CNC Lathe Maintenance

This course is designed for the student who has little or no hands on training for CNC lathes. The course covers the separate subsystems and how they work together. Students will practice: preventive maintenance required to keep the machine running in top condition; diagnosis of problems using existing technical skills supplemented with the training manuals provided with this course. Students will become familiar with the machines' self-checking diagnostics, and how to proceed with troubleshooting and repair as recommended by the manuals or the equipment distributor's service staff.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Course Type: Technical

## MFG-366 General CNC Mill Maintenance

This course is designed for the student who has little or no hands on training for CNC mills. The course covers the separate subsystems and how they work together. Students will practice: preventive maintenance required to keep the machine running in top condition; diagnosis of problems using existing technical skills supplemented with the training manuals provided with this course. Students will become familiar with the machines' self-checking diagnostics, and how to proceed with troubleshooting and repair as recommended by the manuals or the equipment distributor's service staff.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Course Type: Technical

## MFG-380 EDM Fundamentals

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.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Course Type: Technical

## MFG-408 Basic Diemaking

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.

Credit Hours: 8 Lecture Hours: 32 Lab Hours: 192

Prerequisite(s): Minimum grade of D in MFG-214, and MFG-228, and MFG-364.

Pre/Co-requisite(s): Minimum grade of D in MFG-410.

Course Type: Technical

## MFG-410 CAD Die Design

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.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Course Type: Technical

## MFG-431 Die Revision and Repair

This course will train students on common maintenance, repair and revision techniques performed on manufacturing tooling such as stamping dies, injection molds, fixtures and jigs. The student will also learn about the maintenance schedule for manufacturing tools, the function and installation of safety sensors, secondary operation components, and gage and inspection components in production tooling.

Credit Hours: 5 Lecture Hours: 16 Lab Hours: 128

Prerequisite(s): Minimum grade of D in MFG-408.

Course Type: Technical

## MFG-452 Moldmaking

The student is presented with the basic fundamentals of plastic mold construction and molding processes. Experienced individuals may contact instructor to gain admittance to this course.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Prerequisite(s): Minimum grade of D- in MFG-408.

Course Type: Technical

## MFG-525 CMM Inspection and SPC

This course instructs the student on the capabilities and basic operation of a Coordinate Measuring Machine 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 be introduced in this course.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Prerequisite(s): Minimum grade of D in MFG-142.

Course Type: Technical

## MFG-924 Honors Project

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. This course can be repeated with different content for credit.

May be taken for 1 – 3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: Technical

# MGT: Management

## MGT-101 Principles of Management

A study of current theory and practice of leading a complex business organization toward the accomplishment of organizational objectives.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## MGT-110 Small Business Management

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## MGT-121 Project Management Basics

This course will introduce concepts of project management and the role of the project manager. Emphasis will be placed on project management processes. Practical applications and case studies are used to reinforce and apply concepts to real life situations.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## MGT-142 Problems and Issues in Supervision and Management

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## MGT-170 Human Resource Management

A study of the theory, principles, concepts and practices of developing and utilizing personnel within business organizations.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## MGT-174 Training and Employee Development

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## MGT-177 Staffing

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## MGT-178 Employment Law

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## MGT-180 Management and Labor Relations

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## MGT-181 Customer Service Strategies

This course is designed to introduce students to the concepts of customer service and to help them learn the skills and techniques necessary to provide excellent service to the internal and external customers of the organizations for which they work. These skills are vital for every job since identifying and satisfying customer needs are essential parts of every business organization.

Credit Hours: 2 Lecture Hours: 32

Course Type: Technical

## MGT-190 Employee Compensation and Benefits Management

This course will develop knowledge in the area of compensation and benefit practices including job evaluation, salary surveys, individual and group performance based pay plans, health insurance, wellness programs, pensions, and the associated legal environment. Compensation and benefit management theories will be integrated with organizational goals and objectives severing as the overall foundation for development and implementation.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## MGT-208 Introduction to Information Systems

The purpose of the course is to provide the student with a broad understanding of management information systems (MIS) and also to provide more detailed hands-on use of application programs for better preparation for employers. The course covers management information topics, spreadsheets, databases, HTML and visual basic for applications (VBA).

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## MGT-210 Management Decision Making

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## MGT-222 Golf Club Operations

Students will study strategic, tactical and operational practices regarding golf courses. Key determinates as to why some golf courses are successful and others struggle.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## MGT-590 HR Certification Prep

This course will explore the certification exams for certification in human resources. While the course does not guarantee students will pass the exams, the course will address major aspects of the exams, main areas of content, test taking tips and strategies, as well as registration for the exams.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

# MIL: Military and ROTC

## MIL-103 Military Survival Skills

Basic military survival principles are discussed in class and demonstrated during a Survival Weekend. Concepts taught are: shelter building, water and food gathering, land navigation, first aid, and rescue signaling. Discussion, 1 hr./wk.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Course Type: General Education / Transfer

## MIL-110 Leadership and Personal Development

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.

Credit Hours: 1 Lab Hours: 32

Course Type: General Education / Transfer

## MIL-115 Foundations of Tactical Leadership

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.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## MIL-120 Innovative Team Leadership

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.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Course Type: General Education / Transfer

## MIL-121 Leadership and Decision Making

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., lab arranged, plus 1 field trip.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Course Type: General Education / Transfer

## MIL-122 Leadership in Changing Environment

Credit Hours: 2 Lecture Hours: 32

Course Type: General Education / Transfer

## MIL-130 Military Fitness Class

This course is designed to use basic military training skills and instruction to develop confidence, leadership, and physical fitness. The team approach is utilized in the instruction and application of Army physical fitness requirements. Students will learn various Army physical fitness techniques as well as how to conduct physical fitness sessions. Full participation in all events will be determined based on students physical and medical eligibility.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

# MKT: Marketing

## MKT-110 Principles of Marketing

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## MKT-140 Principles of Selling

Planned learning activities and experiences emphasize the psychology of selling, the selling process, sales techniques, and selling as a professional career.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## MKT-142 Consumer Behavior

Consumer behavior 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.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## MKT-152 Advertising and Visual Merchandising

This course presents the fundamentals of advertising and visual merchandising as promotional tools. It incorporates the Integrated Marketing Communication (IMC) concept.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## MKT-160 Principles of Retailing

Organized learning activities emphasize the status of retail environments, operations, locations, merchandising, pricing and promotions.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## MKT-198 Sports Marketing

This course will explain the basics of sports marketing, research, and delivery.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

# MKT-924 Honors Project

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. This course can be repeated with different content for credit.

May be taken for up to 3 credits.

Credit Hours: 1  Lecture Hours: 16

Course Type: General Education / Transfer

# MLT: Medical Laboratory Technology

## MLT-101 Introduction to Lab Science

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.

Credit Hours: 2 Lecture Hours: 32

Course Type: Technical

## MLT-103 Lab Mathematics

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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## MLT-110 Fundamental Lab Techniques

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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## MLT-120 Urinalysis

This course includes the study of urine formation and methodology determining the physical, chemical, and microscopic properties of urine in normal and abnormal states.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## MLT-130 Hematology

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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of C in MLT-110.

Course Type: Technical

## MLT-230 Advanced Hematology

This advanced course is a sequel to Hematology I, and includes an in-depth study of various anemias, leukemias, and other hematologic disorders.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of C in MLT-130.

Course Type: Technical

## MLT-233 Hemostasis and Thrombosis

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.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Prerequisite(s): Minimum grade of C in MLT-110.

Course Type: Technical

## MLT-240 Clinical Chemistry I

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.

Credit Hours: 7 Lecture Hours: 64 Lab Hours: 96

Prerequisite(s): Minimum grade of C in CHM-122, and MLT-103, and MLT-110.

Course Type: Technical

## MLT-250 Clinical Microbiology

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.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Prerequisite(s): Minimum grade of C in BIO-186

Co-requisite(s): Minimum grade of C in MLT-110

Course Type: Technical

## MLT-252 Parasitology

This course includes a study of medically important human parasites with respect to life cycle, pathogenicity, and laboratory identification.

Credit Hours: 1 Lecture Hours: 16

Course Type: Technical

## MLT-260 Immunohematology

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.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Prerequisite(s): Minimum grade of C in MLT-110.

Course Type: Technical

## MLT-270 Immunology and Serology

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.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Prerequisite(s): Minimum grade of C in MLT-110.

Course Type: Technical

## MLT-283 Clinical Practicum: Urinalysis

This course is a continuation of Urinalysis I and is designed to provide the student with clinical experience in the performance of routine urinalysis. Comparison of methodology with that covered in Urinalysis I is stressed.

Credit Hours: 1 Co-op Hours: 64

Prerequisite(s): Minimum grade of C in MLT-120.

Course Type: Technical

## MLT-284 Clinical Practicum: Immunohematology

This course is a continuation of Immunohematology I 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 I is stressed.

Credit Hours: 2 Co-op Hours: 128

Prerequisite(s): Minimum grade of C in MLT-260.

Course Type: Technical

## MLT-285 Clinical Practicum: Chemistry

This course is a continuation of 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.

Credit Hours: 4 Lecture Hours: 16 Co-op Hours: 192

Prerequisite(s): Minimum grade of C in MLT-240.

Course Type: Technical

## MLT-286 Clinical Practicum: Immunology and Serology

This course is a continuation of 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.

Credit Hours: 1 Co-op Hours: 64

Prerequisite(s): Minimum grade of C in MLT-270.

Course Type: Technical

## MLT-287 Clinical Practicum: Hematology

This course is a continuation of Hematology I and Advanced Hematology. 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 Advanced Hematology is stressed and experience with automation is provided.

Credit Hours: 4 Lecture Hours: 16 Co-op Hours: 192

Prerequisite(s): Minimum grade of C in MLT-130 and MLT-230.

Course Type: Technical

## MLT-288 Clinical Practicum: Microbiology

This course is a continuation of Clinical Microbiology I and 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.

Credit Hours: 4 Lecture Hours: 16 Co-op Hours: 192

Prerequisite(s): Minimum grade of C in BIO-186, and MLT-250, and MLT-252.

Course Type: Technical

## MLT-291 Lab Survey and Review

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.

Credit Hours: 1 Co-op Hours: 64

Prerequisite(s): Minimum grade of C in MLT-283, and MLT-284, and MLT-285, and MLT-286, and MLT-287, and MLT-288.

Course Type: Technical

# MMS: Mass Media Studies

## MMS-105 Audio Production

This course examines the principles of sound and acoustics and basic audio capture techniques. The equipment for recording as well as production and editing audio will be analyzed and employed. Sound quality and final output issues will be addressed.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## MMS-111 Video Production I

This course will introduce creative storytelling using the basics of video production, camera handling, digital exposure, audio capture and workflow. Emphasis is on the aesthetics and application of production techniques to produce professional video output.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## MMS-117 Social Media for Business

This course examines using social media outlets for promoting and doing business. The course will investigate issues and strategies related to social media environments, customer relationships, marketing, managing your communication, sustainability and what social media may look like in the future.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## MMS-124 Survey of Commercial Video

This course examines how to produce a variety of types of videos for commercial use including promotional videos, music videos, weddings, corporate videos and live events.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of D in MMS-111.

Course Type: Technical

## MMS-128 Digital Print Production

This course will introduce students to the skills and software used for digital production of printed materials including still photos, brochures, flyers, poster, business cards and other materials printed from original digital creations.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## MMS-134 Media Writing

This course will focus on writing for media outlets including newspaper, television, radio, internet and public relations. Emphasis will be on writing clearly for both general and targeted audiences in order to communicate the desired message efficiently.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## MMS-208 Sound for Film and Video

This course will cover the fundamental elements of producing, designing and editing sound for film and video. Students learn the basics of audio recording, sound editing and multi-track sound design specifically for the moving image. Topics covered include microphone techniques, field and studio recording, ADR, Foley techniques and using digital audio multi-tracking software.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D in MMS-105 and MMS-111.

Course Type: Technical

## MMS-213 Video Production II

This course will explain advanced video production techniques.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D in MMS-111.

Course Type: Technical

## MMS-214 Audio Production II

This course is designed to assist the student in learning advanced principles and processes of audio production. The course builds on skills learned in Audio Production I will familiarize and inform the student on proper techniques in audio production for a variety of media outputs.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D in MMS-105.

Course Type: Technical

## MMS-218 Editing and Color Grading

This course explains the theory and execution of video editing and color grading. It addresses technical competencies, such as workflow, formats, and the use of industry standard software. Students will also explore artistic techniques in video post-production including visual storytelling, sound design, and color. Students will produce final projects to demonstrate their understanding of key concepts.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D in MMS-111.

Course Type: Technical

## MMS-219 Digital Audio Workstation

The digital audio workstation, referred to by DAW, is the primary tool for recording, editing, and mixing audio in the modern audio industry. Avid’s Pro Tools DAW software is the industry standard in studios everywhere. As an industry professional it is important to know the fundamentals of Pro Tools and DAW software. This course is designed to thoroughly explore the operation and application of the digital audio workstation using Pro Tools.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D in MMS-105.

Course Type: Technical

## MMS-265 Mass Communications Law

This course examines media law, including First Amendment, copyright and fair use. It focuses on social, political, and economic influences. It examines legal constraints for students planning to become professional communicators.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## MMS-302 Solo Video Journalism

This course examines and explains the techniques for working in the field of video journalism as a sole practitioner.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Pre/Co-requisite(s): A minimum grade of D in MMS-111.

Course Type: Technical

## MMS-305 Lighting for Cinematography

This course is focused on advanced lighting for commercial and narrative productions. Students will gain hands-on experience using industry standard lighting equipment and apply that knowledge and skill to real life situations. Students will study the nature of light in depth, learn how to create and manipulate light, and expand their understanding of the technical aspects of lighting.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in MMS-111 and MMS-213.

Course Type: Technical

## MMS-320 Recording Studio I

Course will introduce students to the basic operations of a recording studio. The course will detail proper methods for wiring of a studio, discuss studio acoustics, analyze studio design and address proper monitoring. The course will also demonstrate proper microphone placements and advanced compression methods.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D in MMS-105 and MMS-214 .

Course Type: Technical

## MMS-321 Electronic Studio Production

This course emphasizes audio production techniques and sound creation by electronic means, as opposed to acoustic sound capture and manipulation. Emphasis on MIDI technology and music production, audio synthesis, and audio sampling in a recording studio environment.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D in MMS-105 and MMS-214.

Course Type: Technical

## MMS-330 Motion Graphics for Video

This course explains the theory and execution of motion graphics in a video production environment. Instruction in use of and methods for constructing a variety of motion graphics and animation techniques will be delivered. Media management and output formats will also be addressed.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in MMS-111 and MMS-213

Course Type: Technical

## MMS-340 Live Sound Production

This course introduces students to the components and operation of public address sound systems. The course will cover equipment, setup, operation, and personal communication in a live sound production environment. This course offers students hands on lab and real world experiences with industry audio equipment.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D in MMS-105 and MMS-214.

Course Type: Technical

## MMS-400 Video Production for Web Streaming

This course will provide students technical application and training in producing, shooting and broadcasting via web streaming. It will offer students an advanced understanding of traditional television studio environments, as well as field production. Students will experience hands-on training and team-oriented tasks in studio floor positions, studio lighting, 3-camera operating setup, microphone setups, floor management and set design. In addition, technical aspects of control room duties, live and archival streaming processes will be covered.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D in MMS-111 and MMS-213 .

Course Type: Technical

## MMS-420 Recording Studio II

Course will be an advanced study in producing within the studio environment. The course will provide hands-on use of the studio equipment including mics, mixing boards and digital audio software. Advanced recording techniques will be employed. Production of a variety of music styles and the proper steps involved in recording and mixing and outputting each will be addressed.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D in MMS-105, and MMS-214, and MMS-320.

Course Type: Technical

## MMS-425 Mixing and Mastering Audio

Theory and practice in the various styles of mixing and mastering audio. Students will be given instruction on the various techniques used in the craft of mixing such as: equalization, panning perspectives, dynamics processing (compressors, limiters, gates, expanders), spatial effects (reverb and delay), modulation effects (chorus, flange, filters), and basic automation of audio and its corresponding effects. The mastering portion of the class will focus on the use of equalization, dynamics control, song sequencing, and correct formats of final delivery. This course will provide multiple styles of mixing and mastering including hardware-based instruction, in-the-box digital audio workstation methods, and hybrid workflows that utilize both analog and digital tools.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D in MMS-105 and MMS-214.

Course Type: Technical

## MMS-431 Group Film

This class will focus on group production of independent, short films from concept to delivery. Emphasis will be on learning the roles and responsibilities as well as the technical and creative aspects of film making by working on small production teams. The instructor will function as “Executive Producer,” technical advisor and critical mentor.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D in MMS-111 and MMS-213.

Course Type: Technical

## MMS-901 Portfolio Production

The course is intended to advance student knowledge in portfolio and resume construction and job search strategies.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## MMS-905 Digital Mass Media Internship

Students will intern at media agencies and outlets in the region and state, focusing on internal operations and client relations. May take for 1 – 3 credits.

Credit Hours: 3 Co-op Hours: 192

Course Type: Technical

## MMS-949 Special Topics

This course offers a specialized study or project under the supervision of a faculty member. It may not duplicate any course already in the catalog. Students earn credit based upon the agreed upon credit and contact hours. This course can be repeated with different content for credit. Course may be taken for 1 – 3 credits.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 64

Course Type: Technical

# MUA: Music — Applied

## MUA-101 Applied Voice

This course offers one half-hour lesson of private instruction per week, with a minimum of 30 minutes of practice per day. The goal is the development of both fundamental and advanced vocal techniques. The presentation of the standard repertoire for the specific voice is required. This course can be repeated with different content for credit.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## MUA-106 Class Voice

This course provides instruction in fundamental vocal techniques. Breath support, diction, alignment and posture, vowel formation, tone production and stage presence will be explored through standard repertoire chosen for individual vocal needs.

Credit Hours: 1 Lab Hours: 32

Course Type: General Education / Transfer

## MUA-112 Applied Composition

This course is designed for students who desire private, one-on-one instruction in music composition. One credit hour indicates a one half-hour private lesson per week. The course will enable students to gain increased proficiency in composition, focused on various styles and contemporary/avant garde compositional techniques. This course can be repeated with different content for credit.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## MUA-119 Class Piano

This course is designed for students of all levels, especially for students without any piano or musical experience. It is an introduction to fundamental aspects of playing piano including technique, musicianship, performance, as well as reading music scores and understanding music in general. It is also perfect for music majors to develop basic piano proficiency skills, including scales, chords, harmonizing melodies, and developing a basic piano repertoire.

Credit Hours: 1 Lab Hours: 32

Course Type: General Education / Transfer

## MUA-120 Applied Piano

This course offers one half-hour lesson of private instruction per week. Individual needs are met based upon the student's background in playing technique, musicianship, and performance. Students advance their skills through weekly lessons and regular practice. Additional outside practice/preparation is required. This course can be repeated with different content for credit.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## MUA-121 Applied Piano II

This course offers a one-hour lesson of private instruction per week. Individual needs are met based upon the student's background in playing technique, musicianship, and performance. Students advance their skills through weekly lessons and regular practice. Additional outside practice/preparation is required. This course can be repeated with different content for credit.

Credit Hours: 2 Lecture Hours: 32

Course Type: General Education / Transfer

## MUA-124 Applied Guitar

This course offers one half-hour lesson of private instruction per week. Individual needs are met based upon the student's background in playing technique, musicianship, and performance. Students advance their skills through weekly lessons and regular practice. Additional outside practice/preparation is required. This course can be repeated with different content for credit.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## MUA-126 Applied Strings

This course offers one half-hour lesson of private instruction per week. Individual needs are met based upon the student's background in playing technique, musicianship, and performance. Students advance their skills through weekly lessons and regular practice. Additional outside practice/preparation is required. This course can be repeated with different content for credit.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## MUA-149 Applied Strings II

This course offers a one-hour lesson of private instruction per week. Individual needs are met based upon the student's background in playing technique, musicianship, and performance. Students advance their skills through weekly lessons and regular practice. Additional outside practice/preparation is required. This course can be repeated with different content for credit.

Credit Hours: 2 Lecture Hours: 32

Course Type: General Education / Transfer

## MUA-180 Applied Percussion

Individualized instruction in percussion/drum set for the beginning, intermediate or advanced student. Requires 30 minute weekly lessons during the semester. Additional outside practice/preparation is required. This course may be repeated with different content for credit. No prior musical experience is necessary.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## MUA-181 Applied Percussion II

Individualized instruction in percussion/drum set for the beginning, intermediate or advanced student. Requires 30 minute lessons during the semester. Additional outside practice/preparation is required. This course can be repeated with different content for credit.

Credit Hours: 1 Lecture Hours: 16

Prerequisite(s): Minimum grade of C- in MUA-180.

Course Type: General Education / Transfer

## MUA-212 Applied Composition II

This course is designed for students who desire private, one-on-one instruction in music composition. Two credit hours indicate a one-hour private lesson per week. The course will enable students to gain increased proficiency in composition, focused on various styles and contemporary/ avant garde compositional techniques. This course can be repeated with different content for credit.

Credit Hours: 2 Lecture Hours: 32

Course Type: General Education / Transfer

## MUA-227 Applied Guitar II

This course offers a one-hour lesson of private instruction per week. Individual needs are met based upon the student's background in playing technique, musicianship, and performance. Students advance their skills through weekly lessons and regular practice. Additional outside practice/preparation is required. This course can be repeated with different content for credit.

Credit Hours: 2 Lecture Hours: 32

Course Type: General Education / Transfer

## MUA-401 Applied Voice II

Applied Voice II meets individual needs based upon the student's background and training while providing applied lessons and guided instruction in tone production, technique, musicianship, and performance practice. Students advance their skills through weekly lessons and regular practice of fundamental techniques and solo repertory. This course can be repeated with different content for credit.

Credit Hours: 2 Lecture Hours: 32

Course Type: General Education / Transfer

# MUS: Music — General

## MUS-100 Music Appreciation

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## MUS-102 Music Fundamentals

This course will introduce basic concepts of music theory, aural skills, and vocabulary for non-majors with limited background in music fundamentals or as preparation for music major theory courses. Topics such as clefs, staff, key signatures, notation, meter, rhythm, and simple chords as well as basic sight singing, ear training, and keyboard harmony will be covered.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## MUS-106 Music Theory I

Music Theory I is an introduction to the fundamental concepts of music theory. This course is designed to provide students with the skills necessary to read and write musical notation, understand basic harmony and analyze simple pieces. Topics covered include: pitch and rhythm notation, scales and modes, chords and harmony, counterpoint and part writing, form and analysis, and sight-singing and ear training. Through a combination of class discussion, ear training exercises, and written assignments, students will develop a solid foundation in music theory. This course is recommended for music majors, as well as anyone interested in a deeper understanding of music.

Credit Hours: 4 Lecture Hours: 64

Course Type: General Education / Transfer

## MUS-107 Music Theory II

Music Theory II builds on the concepts covered in Music Theory I, and focuses on more advanced topics in music theory. This course is designed to provide students with a deeper understanding of harmony, counterpoint, and analysis. Topics covered include: figured bass, seventh chord, non-harmonic tones, modulation, chromatic harmony, and the analysis of more complex pieces. Through a combination of class discussion, ear training exercises, and written assignments, students will develop a more advanced understanding of music theory.

Credit Hours: 4 Lecture Hours: 64

Prerequisite(s): Minimum grade of C- in MUS-106.

Course Type: General Education / Transfer

## MUS-154 Chorus

This course is designed for students to perform accompanied and unaccompanied vocal ensemble music, ranging from traditional to contemporary styles. The group meets regularly and presents a wide variety of choral literature in on and off campus performances throughout the year. This course can be repeated with different content for credit.

Credit Hours: 1 Lab Hours: 32

Course Type: General Education / Transfer

# MUS-202 World Music

This course is an exploration and comparative examination of non-western music and cultural traditions. Formatted for the general student and music major, the course will include fundamentals of music, basic elements of global music, and study of societal and cultural influence of music traditions on a nation/country.

Credit Hours: 3  Lecture Hours: 48

Course Type: General Education / Transfer

# NET: Networking — Computer

## NET-109 A+ Certification Prep Course

This course will teach basic knowledge of desktop and laptop operating systems. This course will teach the important knowledge and skills necessary to competently install, build, configure, upgrade, troubleshoot and repair personal computers, including troubleshooting basic network and internet connectivity. Additionally, this course will also cover the latest memory, bus, peripherals, and wireless technologies.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Course Type: Technical

## NET-115 College Experience

This course is designed to orient Information Technology students to the college campus, resources, services, and expectations. This course will introduce information technology careers, certifications and preview key IT concepts and systems.

Credit Hours: 1 Lecture Hours: 16

Course Type: Technical

## NET-152 Advanced Network Technology

This course is designed to provide advanced training in a variety of networking topics. Network configuration, fault tolerance, redundancy, monitoring, maintenance and security will be the core drivers of course content. Emerging trends and technologies will be discussed and explored to aid students in creating and implementing an evolving network topology. Many topics support network uptime through proactive maintenance, fault tolerance and redundancy planning. Students will develop and maintain network documentation and determine appropriate action for common problems. This course will build and expand upon Cisco and network security coursework.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of C- in NET-228 and NET-313.

Course Type: Technical

## NET-166 Applied Computer Security

This course will discuss the basic concepts of practical computer and Internet security: passwords, firewalls, antivirus software, malware, social networking, surfing the Internet, phishing, and wireless networks. This class is intended for students with little or no background in information technology or security. Basic knowledge of word processing required.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## NET-168 Administering Windows Server

This course focuses on implementing, managing, maintaining, and provisioning services and infrastructure in a Windows Server environment. This course will include the administration tasks necessary to maintain a Windows Server infrastructure such as configuring and troubleshooting name resolution, user and group management with Active Directory Domain Services (AD DS) and Group Policy, implementing Remote Access solutions such as DirectAccess, VPNs and Web Application Proxy, implementing Network Policies and Network Access Protection, PowerShell scripting, Data Security, deployment and maintenance of server images, as well as update management and monitoring of Windows Server environments. It covers the current objectives for the Microsoft Certification Exam.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in NET-313.

Course Type: Technical

## NET-178 Intro to Cyber Security

This course will provide an overview of the vulnerabilities that exist in most information systems. Students will learn how policies, user education, software and hardware tools can help protect systems during an attack. This course will help students refine their critical thinking skills as they evaluate various technology topics and concepts while searching for underlying connections between the technology and how to apply those concepts in a lab setting, which is a skill that should be beneficial in any/all types of technology careers. This course will also help students gain hands on technology literacy which will be of vital significance when making important work- related decisions.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## NET-202 Programming for Network Administrators

This course introduces basic programming techniques using the Python programming language to automate system administration tasks. Students will design, code, and test Python applications. Students will also be introduced to PowerShell and other scripting tools, and see how these tools compare to Python. The focus of scripting use in this course is to aid in automation of regular system administration tasks.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## NET-213 Cisco Networking

This course introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. It uses the OSI and TCP layered models to examine the nature and roles of protocols and services at the application, network, data link, and physical layers. The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for the curriculum. Labs use a “model Internet” to allow students to analyze real data without affecting production networks. Packet Tracer (PT) activities help students analyze protocol and network operation and build small networks in a simulated environment. At the end of the course, students build simple LAN topologies by applying basic principles of cabling, performing basic configurations of network devices such as routers and switches, and implementing IP addressing schemes.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in MAT-060 or MAT-063. Or equivalent placement score.

Course Type: Technical

## NET-228 Cisco Networking II

This course describes the architecture, components, and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with static routing, virtual LANS, and inter-VLAN routing in both IPv4 and IPv6 networks. Students will be able to perform basic network configuration and troubleshooting, identify and mitigate LAN security threats, and configure and secure a basic WLAN.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in NET-213.

Course Type: Technical

## NET-229 Cisco Networking III

This course describes the architecture, components, and operations of routers and switches in a larger and more complex network. Students learn how to configure routers and switches for advanced functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with OPSF, NAT, ACL's and wide area networking.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in NET-228.

Course Type: Technical

## NET-310 Virtual Machines

This course will cover the concepts of virtualization including hardware and software. Topics will include benefits vs. risks analysis, installation and configuration, operation and maintenance and disaster recovery.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in NET-313.

Course Type: Technical

## NET-313 Windows Server

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 Windows Server operating system. Students will study the design, implementation, and support of a network server network including specialized servers that are common to most networks.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in NET-109.

Course Type: Technical

## NET-346 Windows Exchange Server

This course provides students with the knowledge and skills that are needed to install, update, and support a reliable, secure messaging infrastructure. This infrastructure is used for creating, storing, and sharing information by using Microsoft Exchange Server in a medium-sized to large-sized (100 to 5,000 seats) messaging environment. This course offers a significant amount of hands-on practices, discussions, and assessments that assist students in becoming proficient in the skills that are needed to support Microsoft Exchange Server.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in NET-313.

Pre/Co-requisite(s): Minimum grade of C- in NET-310.

Course Type: Technical

## NET-350 Cisco Security

The Cisco Networking Security course provides a next step for individuals who want to enhance their introductory networking skill set and help meet the growing demand for network security professionals. The curriculum introduces the core security concepts and skills needed for the installation, troubleshooting, and monitoring of network devices to maintain the integrity, confidentiality, and availability of data and devices.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Prerequisite(s): Minimum grade of C- in NET-228.

Course Type: Technical

## NET-412 Linux System Administration

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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## NET-474 Certification Preparation

Course is designed as a review and final preparation for students taking Information Technology certification tests.

Credit Hours: 1 Lecture Hours: 16

Prerequisite(s): Instructor approval required. Must have satisfactory grades in supporting classes and demonstrate motivation to attain certification.

Course Type: Technical

## NET-475 Certification Preparation

Course is designed as a review and final preparation for students taking Information Technology industry certification exams.

Credit Hours: 2 Lecture Hours: 32

Prerequisite(s): Instructor approval required. Must have satisfactory grades in supporting classes and demonstrate motivation to attain certification.

Course Type: Technical

## NET-612 Fundamentals of Network Security

This course is designed to provide student 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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in NET-313.

Course Type: Technical

## NET-619 Network Attacks: Detection, Analysis & Countermeasures

This course provides students the opportunity to attack computer networks to test their defenses and teaches them how to analyze attacks. Topics include attacks and attack analysis, intrusion detection and analysis, and advanced defense countermeasure configuration using firewalls, routers and intrusion detection systems.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Pre/Co-requisite(s): Minimum grade of C- in NET-178

Course Type: Technical

## NET-710 SQL Database

This course is designed to teach the student the basics of computer database administration. This course will cover 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.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in CIS-303 and NET-313.

Course Type: Technical

## NET-914 Cybersecurity Experiential Learning

This course will allow students to put the skills obtained in the program to practical use in a simulated real-world environment. In addition, students will refine teamwork skills and learn to conduct their actions in an appropriate manner for the business world.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Prerequisite(s): Minimum grade of C- in NET-350 or NET-612.

Course Type: Technical

## NET-916 Experiential Learning

This course will allow students to put the skills obtained in the program to practical use in a simulated real world environment. In addition, students will refine teamwork skills and learn to conduct their actions in an appropriate manner for the business world.

Credit Hours: 5 Lecture Hours: 16 Lab Hours: 128

Prerequisite(s): Minimum grade of C- in NET-310 and NET-346.

Course Type: Technical

## NET-932 Internship

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. This course may be taken for 2–3 credit hours.

Credit Hours: 3 Co-op Hours: 128

Prerequisite(s): Minimum grade of C- in NET-109. Must be in program major and have completed 30 credits in one of the following programs: Network Administration and Engineering or Information Systems Management.

Course Type: Technical

## NET-949 Special Topics

This course, usually offered on a limited basis only, provides an in-depth study on a topic of general interest pertaining to this department. This course can be taken for 1 – 3 credit hours.

Credit Hours: 1 Lecture Hours: 16

Course Type: Technical

# OTA: Occupational Therapy Assisting

## OTA-101 Introduction to OT

This course introduces the key concepts of occupational therapy as a health and wellness profession. The roles of occupational therapists are explored, including in traditional and emerging health care, community-based, and education settings. The course will introduce foundational and philosophical concepts, professional ethics, and the emergence of occupational therapists and occupational therapy assistants in the profession. Students will participate in activities to developing an understanding of the occupational therapy process and the skills needed by a healthcare professional.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## OTA-102 Human Movement and Occupation

This course studies 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 utilize assessment data for the occupational therapy process in collaboration with the occupational therapist to plan client-centered treatment sessions.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Prerequisite(s): Minimum grade of B in BIO-168 and BIO-173. Minimum grade of C in PSY-111, and SPC-101, and ENG-105, and MAT-110, and HSC-108, and HSC-113, and OTA-101, and OTA-120.

Course Type: Technical

## OTA-103 Task Analysis

The course will introduce the development and emergence of human occupational performance throughout the lifespan 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.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Prerequisite(s): Minimum grade of B in BIO-168 and BIO-173. Minimum grade of C in PSY-111, and SPC-101, and ENG-105, and MAT-110, and HSC-108, and HSC-113, and OTA-101, and OTA-120.

Course Type: Technical

## OTA-105 OTA and Professional Issues I

This is the first of three courses that focuses on the various aspects of professional issues which will allow the student increase their skills as they transition to a clinician. The course will focus on various types of documentation, advocacy, types of research, and locating, selecting, and comprehending scholarly reports.

Credit Hours: 2 Lecture Hours: 32

Prerequisite(s): Minimum grade of C in SPC-101, and MAT-110, and HSC-113.

Course Type: Technical

## OTA-120 Neuroanatomy for the OTA

This course provides a comprehensive study and in-depth knowledge of the structure and function of the central, peripheral, somatosensory, motor, and autonomic nervous systems. Special emphasis is placed on examining the functions of the nervous system and the neurological basis of dysfunction related to occupational performance.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of B in BIO-168 and BIO-173. Minimum grade of C in PSY-111, and SPC-101, and ENG-105.

Course Type: Technical

## OTA-201 Pediatrics and Occupation

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.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of C in OTA-102, and OTA-103, and OTA-105.

Course Type: Technical

## OTA-202 Pediatric OTA Skills

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.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Prerequisite(s): Minimum grade of C in OTA-102, and OTA-103, and OTA-105.

Course Type: Technical

## OTA-204 Pediatric Psychosocial Conditions and Occupations

The first in a sequence of courses addressing psychosocial 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 mental health disorders, conditions, and circumstances affecting this period of human development.

Credit Hours: 1 Lecture Hours: 16

Prerequisite(s): A minimum grade of C in OTA-102, and OTA-103, and OTA-105.

Course Type: Technical

## OTA-221 Level I Fieldwork Pediatrics

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.

Credit Hours: 1 Co-op Hours: 64

Prerequisite(s): Minimum grade of C in OTA-102, and OTA-103, and OTA-105.

Course Type: Technical

## OTA-222 OTA and Professional Issues II

This is the second of three courses that focuses on the various aspects of professional issues which will allow the student increase their skills as they transition to a clinician. This course will concentrate on principles of teaching and learning process in various settings, health literacy, advocacy, billing, measuring outcomes and documentation, supervision, communication, health and wellness for the client and occupational therapy practitioner, managing one's career, and intraprofessional role of occupational therapist and occupational therapy assistant.

Credit Hours: 1 Lecture Hours: 16

Prerequisite(s): Minimum grade of C in OTA-102, and OTA-103, and OTA-105.

Course Type: Technical

## OTA-311 Adult Psychosocial Conditions and Occupations

The second in a sequence of courses addressing psychosocial 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 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 psychosocial disorders and conditions, and circumstances affecting this period of human development.

Credit Hours: 2 Lecture Hours: 32

Prerequisite(s): Minimum grade of C in OTA-201, and OTA-202, and OTA-204, and OTA-221, and OTA-222.

Course Type: Technical

## OTA-312 Adult Psychosocial OTA Skills

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.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Prerequisite(s): Minimum grade of C in OTA-201, and OTA-202, and OTA-204, and OTA-221, and OTA-222.

Course Type: Technical

## OTA-313 Level I Fieldwork Psychosocial

Students will be participant-observers in settings providing occupational therapy services to adult consumers with psychosocial conditions. Emphasis will be placed on application of didactic information, development of professional work habits, and supervisory collaboration.

Credit Hours: 1 Co-op Hours: 64

Pre/Co-requisite(s): A minimum grade of C in OTA-201, OTA-202, OTA-204, OTA-221, and OTA-222.

Course Type: Technical

## OTA-314 Management and the OTA

This course will investigate the business and management issues as well as the role and responsibility of the occupational therapy assistant. Topics include literacy education, teaching and learning process for educational settings, evidence-based practice, leadership and management in occupational therapy, organizational planning, culture in the work place, changes that occur, management and supervision, financing and budgeting, professional standards, ethical and legal considerations, interprofessional and intraprofessional relationships.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of C in OTA-201, and OTA-202, and OTA-204, and OTA-221, and OTA-222.

Course Type: Technical

## OTA-315 Adult Physical Conditions and Occupations

The second in a sequence of courses addressing physical conditions causing disruption of occupational skills and life roles in humans throughout the lifespan. This course presents theoretical frameworks and models of practice for understanding the occupational nature of early to middle adulthood at home, work and in the community. Approaches for applying the occupational process by the occupational therapy assistant is studied within the contexts of a variety of physical disorders including conditions, and circumstances affecting this period of human development.

Credit Hours: 2 Lecture Hours: 32

Prerequisite(s): Minimum grade of C in OTA-311, and OTA-312, and OTA-313, and OTA-314.

Course Type: Technical

## OTA-316 Physical OTA Skills

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.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Prerequisite(s): Minimum grade of C in OTA-311, and OTA-312, and OTA-313, and OTA-314.

Course Type: Technical

## OTA-401 Elders and Occupation

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.

Credit Hours: 2 Lecture Hours: 32

Prerequisite(s): Minimum grade of C in OTA-311, and OTA-312, and OTA-313, and OTA-314.

Course Type: Technical

## OTA-402 OTA Skills for Elders

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.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Prerequisite(s): Minimum grade of C in OTA-311, and OTA-312, and OTA-313, and OTA-314.

Course Type: Technical

## OTA-403 Level I Fieldwork Physical Dysfunction

Students will be participant-observers in settings providing occupational therapy services to adult consumers with physical dysfunction. Emphasis will be placed on development of profesional work habits and supervisory collaboration.

Credit Hours: 1 Co-op Hours: 64

Prerequisite(s): Minimum grade of C in OTA-311, and OTA-312, and OTA-313, and OTA-314.

Course Type: Technical

## OTA-502 Level II Fieldwork A

The first of two courses consisting of 8 weeks of full-time community-based clinical education. Students will participate in the delivery of occupational therapy services, in collaboration and with supervision from a currently licensed or credentialed occupational therapist or occupational therapy assistant. They will work with individuals at different point of the lifespan, experiencing disruption of occupational performance.

Credit Hours: 5 Co-op Hours: 320

Prerequisite(s): Minimum grade of C in OTA-315, and OTA-316, and OTA-401, and OTA-402, and OTA-403.

Course Type: Technical

## OTA-503 Level II Fieldwork B

The second of two courses consisting of 8 weeks of full time community-based clinical education. Students will participate in the delivery of occupational therapy services, in collaboration and with supervision from a currently licensed or credentialed occupational therapist or occupational therapy assistant. They will work with individuals at different points of the lifespan, experiencing disruption of occupational performance.

Credit Hours: 5 Co-op Hours: 320

Prerequisite(s): Minimum grade of C in OTA-502 including a passing score of the AOTA Fieldwork Performance Evaluation (FWPE) for the Occupational Therapy Assistant Student.

Course Type: Technical

## OTA-504 Student to Clinician

This course is the final course of three for aspects of professionalism which focuses on the various topics as a student increases their skills with transitioning to a clinician. The course will concentrate communicating the distinct nature of occupational therapy to variety of individuals, increasing knowledge of the occupational therapy practice’s aspect of business management, process of the requirements credentialing for and licensure, competency-based supervisory process, scholarly activity and communication of information, strategies for ongoing professional development in practice and academic settings, and professional responsibility in regards to liability.

Credit Hours: 1 Lecture Hours: 16

Prerequisite(s): Minimum grade of C in OTA-502 including a passing score of the AOTA Fieldwork Performance Evaluation (FWPE) for the Occupational Therapy Assistant Student.

Course Type: Technical

# PEA: Physical Education — Activities

## PEA-117 Bowling I

This skill course introduces students to the lifetime activity of bowling. The course will cover basic fundamentals of bowling such as rules and etiquette, approach, ball delivery, strikes, spares, and scoring. Individual, league, and tournament play will also be included.

Credit Hours: 1 Lab Hours: 32

Course Type: General Education / Transfer

## PEA-123 Circuit Training

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.

Credit Hours: 1 Lab Hours: 32

Course Type: General Education / Transfer

## PEA-145 Crosstraining and Core Fitness

This aerobic course, designed to improve physical fitness levels, provides the opportunity for participants of all levels to progress at their own pace. Various types of cardiovascular exercise modalities will be utilized throughout the course. Core stability and strengthening are also emphasized.

Credit Hours: 1 Lab Hours: 32

Course Type: General Education / Transfer

## PEA-150 Powerwalking

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.

Credit Hours: 1 Lab Hours: 32

Course Type: General Education / Transfer

## PEA-187 Weight Training I

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.

Credit Hours: 1 Lab Hours: 32

Course Type: General Education / Transfer

## PEA-191 Pilates

This skill course is designed to provide students with the opportunity to learn Pilates principles and mat-based exercises from the beginner level, through the intermediate level, and 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".

Credit Hours: 1 Lab Hours: 32

Course Type: General Education / Transfer

## PEA-194 Vinyasa Yoga

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.

Credit Hours: 1 Lab Hours: 32

Course Type: General Education / Transfer

## PEA-287 Weight Training II

This skill course emphasizes the importance of variation in the weight training regimen by incorporating different training systems.

Credit Hours: 1 Lab Hours: 32

Prerequisite(s): Minimum grade of D in PEA-187.

Course Type: General Education / Transfer

## PEA-294 Weight Training III

Weight Training III provides consistent routine instruction in the performance of weight training exercises with emphasis on complex biomechanics of lifting.

Credit Hours: 1 Lab Hours: 32

Course Type: General Education / Transfer

# PEC: Physical Education — Coaching / Officiating

## PEC-110 Coaching Ethics, Techniques, and Theory

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 this 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.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## PEC-115 Athletic Development and Human Growth

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.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## PEC-123 Anatomy for Coaching

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.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## PEC-127 Care and Prevention of Athletic Injuries

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.

Credit Hours: 2 Lecture Hours: 32

Course Type: General Education / Transfer

# PEH: Physical Education and Health — General

## PEH-111 Personal Wellness

This is an introductory level course designed to explore wellness in all dimensions. Students will assess their overall level of wellness, assess current lifestyle choices, and be enabled with strategies that will lead to an improved lifestyle and overall level of wellness.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## PEH-141 First Aid

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.

Credit Hours: 2 Lecture Hours: 32

Course Type: General Education / Transfer

## PEH-160 Fundamentals of Health Coaching

This course reviews health coaching and its relevance in today's health care industry. Includes information on coaching psychology, insight on weight management psychology, the physiology of obesity, techniques for lifestyle coaching, and the relationship between exercise and nutrition for weight control.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## PEH-162 Introduction to Physical Education

Career exploration course into the fields of physical education, sport, health, and recreation. Philosophies, principles and historical perspectives will be introduced.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## PEH-191 Sports Nutrition

This course will present basic principles of human nutrition and the nutritional needs of athletes and/or physically active populations. Examination of nutrition's effects on health and human performance, focusing on fuel sources, metabolism, hydration, supplement use and ergogenic aids, maintaining a healthy body composition, and eating disorders will also occur.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## PEH-909 Cooperative Education

Cooperative Education provides an observation and participation experience to explore duties, roles, and responsibilities in settings related to wellness, athletics, exercise science, physical education, and/or a similar agency. This takes place in area agencies under the direction of a supervisor. This course can be repeated with a different agency for credit.

Credit Hours: 1 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in PEH-162.

Course Type: General Education / Transfer

## PEH-924 Honors Project

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. This course can be repeated with different content for credit. This course may be taken for 1–3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## PEH-928 Independent Study

This course provides students with an opportunity to pursue or investigate a topic of interest that does not fit within the framework of regular course offerings. An independent study self-directed learning agreement must be discussed with and submitted to a faculty advisor prior to registration. This course may be repeated for credit with different content. Course can be taken for 1–3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## PEH-949 Special Topics

Special Topics expands the curriculum by allowing students to enroll for up to three credits in a specific course or program area. Subject matter may be an in-depth extension of the particular area and is developed by the teaching faculty to meet unique interests and needs of the students. This course may not duplicate another one already in the catalog. This course may be repeated for credit with different content. This course can be taken for 1–3.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

# PHI: Philosophy

## PHI-101 Introduction to Philosophy

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## PHI-105 Introduction to Ethics

Introduction to Ethics examines contemporary ethical conflicts and provides a grounding in the language, concepts, and traditions of ethics. This course provides students with the intellectual tools to analyze moral dilemmas in the fields they choose to pursue and participate in as members of society.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

# PHS: Physical Science

## PHS-120 Exploring Physical Science

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.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Prerequisite(s): Minimum grade of D- in MAT-060 or MAT-063. Or equivalent placement score.

Course Type: General Education / Transfer

## PHS-142 Principles of Astronomy

This physical science course explores the mysteries of the universe. Through scientific reason, the course will examine the following: the history of astronomy, the planets, stars, nebulae, galaxies, the creation and fate of the universe and our place in it. This course includes amateur observation techniques.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of D- in MAT-060 or MAT-063. Or equivalent placement score.

Course Type: General Education / Transfer

## PHS-152 Astronomy

A basic course in descriptive astronomy dealing with the development of modern astronomy and with its present-day theories and observations. Topics covered include motions of solar system and deep sky objects, telescopes and other instruments, members of the solar system, nature of the sun, other stars, origin and development of stars and planets, our galaxy, other galaxies, and the organization of the universe.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Prerequisite(s): Minimum grade of D- in MAT-060 or MAT-063. Or equivalent placement score.

Course Type: General Education / Transfer

## PHS-924 Honors Project

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. This course can be repeated with different content for credit. This course may be taken for 1–3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## PHS-928 Independent Study

This course provides students with an opportunity to pursue or investigate a topic of interest that does not fit within the framework of regular course offerings. An independent study self-directed learning agreement must be discussed with and submitted to a faculty advisor prior to registration. This course may be repeated for credit with different content. Course can be taken for 1–3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

# PHS-949 Special Topics

Special Topics expands the curriculum by allowing students to enroll for up to three credits in a specific course or program area. Subject matter may be an in-depth extension of the particular area and is developed by the teaching faculty to meet unique interests and needs of the students. This course may not duplicate another one already in the catalog. This course may be repeated for credit with different content. This course can be taken for 1–3.

Credit Hours: 1  Lecture Hours: 16

Course Type: General Education / Transfer

# PHT: Photography — Commercial

## PHT-102 Photo Design I

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## PHT-106 Introduction to Image Editing

This course will provide a basic introduction to raster based still digital image manipulation using industry standard software. This course is designed to provide students with a workable understanding of the digital software interface and tools used in imaging workflows.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## PHT-108 Camera I

This course is an introduction to the basics of camera handling, exposure and meter usage.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## PHT-109 Print I

This course is an introduction to the basics of processing camera outputs and applying techniques used to produce a professional print. This course also emphasizes the fundamental print finishing methods used in the professional photography industry to enhance a photograph's overall presentation.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Pre/Co-requisite(s): PHT-108.

Course Type: Technical

## PHT-110 Camera II

This course is an extension of Camera I and expands on camera captures, introducing editing workflows and image conversions. Additional camera accessories and optical image management are explained along with common problems with optics and what can be done to correct for them.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D in PHT-108.

Course Type: Technical

## PHT-111 Print II

This course emphasizes color output and the need for a properly managed original image, and properly managed output devices that result in either physical prints or virtual presentations.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): PHT-106 and PHT-109

Pre/Co-requisite(s): PHT-202 or PHT-204

Course Type: Technical

## PHT-202 Basic Portraiture

This course presents an introduction and an overview of the professional portrait field. The course will introduce management techniques used in portrait studios. The course will include instruction on studio equipment and utilizing natural light and studio lighting to produce acceptable portraits.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D in PHT-106, and PHT-108, and PHT-109.

Course Type: Technical

## PHT-204 Basic Commercial Photography

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 and demonstrated.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of D in PHT-106, and PHT-108, and PHT-109.

Course Type: Technical

## PHT-210 Visual Communication

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## PHT-212 Intermediate Electronic Imaging

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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): PHT-106

Course Type: Technical

## PHT-215 Portrait Image Editing

This course will deal with adjusting and enhancing images after capture and before final output using computer imaging software. Emphasis will be on images used in the portrait photography industry.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): PHT-106

Course Type: Technical

## PHT-216 Commercial Image Editing

This course will deal with adjusting and enhancing images after capture and before final output using computer imaging software. Emphasis will be on images used in the commercial photography industry.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): PHT-106 and PHT-111

Course Type: Technical

## PHT-217 Advanced Portrait Image Editing

This course will deal with multiple images in portrait production giving a series of images that will be used together in an album or multi-image presentation a consistent look, or insuring a series of images that will be combined into a composite image will have appropriate balance.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): PHT-215

Course Type: Technical

## PHT-218 Advanced Commercial Image Editing

This course will deal with multiple images in commercial production; giving a series of images that will be used together in a catalog or brochure a consistent look, or insuring a series of images that will be combined into a composite image will have appropriate balance.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): PHT-216

Course Type: Technical

## PHT-220 Intermediate Portraiture

This course is designed to assist the student in learning advanced portrait techniques and the business tools needed to start and maintain a portrait studio. The course creates an awareness of the work environment the student will enter. This course builds on the skills learned in Basic Portraiture and will include portrait assignments incorporating the criteria for acceptable portraits while utilizing studio lighting and natural lighting.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D in PHT-202.

Course Type: Technical

## PHT-227 Intermediate Commercial

This course builds on the theory and techniques learned in Basic Commercial Photography. Lighting and image control will be presented in a variety of situations both in the studio and on location.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of D in PHT-204.

Course Type: Technical

## PHT-240 Portrait Production and Portfolio

This course is designed to assist the student in learning production portrait techniques and the customer services needed to start and maintain a portrait studio. The course creates an awareness of the work environment. This course builds on the skills learned in Intermediate Portraiture and will include various portrait assignments in the studio, outdoors and on location. A portfolio presentation is required upon completion.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D in PHT-220.

Course Type: Technical

## PHT-241 Portrait Business

This course overviews the day to day operations specific to a portrait photography business, including business structure, cost of doing business, invoicing, staffing and business taxes.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D in PHT-202

Course Type: Technical

## PHT-242 Audio Visual Presentations

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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D in PHT-110 or MMS-103.

Course Type: Technical

## PHT-244 Wedding Photography

This course presents an overview of the professional wedding field. The course will include instruction on equipment, lighting and posing utilized for photographing a wedding. The course will also cover marketing, sales techniques and the day-to-day business procedures needed to operate a wedding business.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Prerequisite(s): PHT-220

Course Type: Technical

## PHT-245 History of Photography

This course introduces the student to the history of the photographic profession and it's ascent to the modern art form we know today. The people, processes, and their contribution to society throughout photography's short history will be discussed and studied. In addition, the medium's future will be examined.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## PHT-247 Commercial Production and Portfolio

This course will look at a number of challenging situations likely to be encountered by commercial photographers, including ones that require advanced lighting solutions, large teams of people, or extensive planning and preparation. This course analyzes a variety of photographic styles and considers the importance of developing a personal photographic style. Students will be required to produce and present a portfolio of their commercial images.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of D in PHT-227.

Course Type: Technical

## PHT-248 Commercial Business

This course overviews the day to day operations specific to a commercial photography business, including business structure, cost of doing business, invoicing, staffing and business taxes.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of D in PHT-204.

Course Type: Technical

## PHT-249 Advanced Commercial Lighting

The course will cover advanced lighting theory and techniques, working with a number of both common and challenging lighting situations likely to be encountered by commercial photographers, on location and in studio.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D in PHT-204.

Course Type: Technical

## PHT-251 Fine Art Photography

This course will present an overview of the Fine Art Photography field. Outlets will be identified for selling personal fine art photography. The course will also include instruction on how to apply to shows and give direction on how to present, display, and sell fine art photography.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of D in PHT-111.

Course Type: Technical

## PHT-253 Art Direction

This course will provide an overview of the working relationship between the photographer and the art director, as well as explore skills needed for good communication and collaboration.

Credit Hours: 3  Lecture Hours: 48

Pre/Co-requisite(s): A minimum grade of D in PHT-204.

Course Type: Technical

## PHT-928 Photography Independent Study

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. This course can be repeated with different content for credit. This course can be taken for 1–5 credit hours.

May be taken for up to 5 credits.

Credit Hours: 1 Lab Hours: 32

Course Type: Technical

# PHY: Physics

## PHY-100 Physics in Everyday Life

Basic laws and concepts of physics introduced and applied to activities to help students investigate how physics applies to everyday life.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## PHY-162 College Physics I

This course covers the fundamental concepts, principles and laws of physics and their applications. It covers kinematics, dynamics, force, linear and rotational motion, fluids, sound, temperature, and heat.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in MAT-741 or MAT-102. Or equivalent placement score.

Course Type: General Education / Transfer

## PHY-172 College Physics II

This course is the second semester continuation of General Physics I. The course studies the fundamental concepts, principles and laws of physics and their application. It covers electricity and magnetism, light and geometric optics, quantum and nuclear physics.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in PHY-162.

Course Type: General Education / Transfer

## PHY-183 Applied Physics

This course is an introduction to topics of classical physics such as motion, friction, gravitation, vibrational motion, thermodynamics, sound, light and optics.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in MAT-504, MAT-741, or MAT-121.

Course Type: Technical

## PHY-212 Classical Physics I

This course introduces physics using calculus-level mathematics. Designed for students in Engineering, Mathematics, and Physics. The first semester of this sequence covers the topics of vectors, linear and rotational kinematics, statics, dynamics, oscillatory and wave motion, temperature, and heat.

Credit Hours: 5 Lecture Hours: 64 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in MAT-210.

Course Type: General Education / Transfer

## PHY-222 Classical Physics II

This course is the second semester continuation of Classical Physics I. This is a calculus-based course that studies the fundamental concepts, principles and laws of physics, and their applications. Topics include: electricity and magnetism, light and geometric optics, quantum and nuclear physics.

Credit Hours: 5 Lecture Hours: 64 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in PHY-212 and MAT-216.

Course Type: General Education / Transfer

## PHY-924 Honors Project

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. This course can be repeated with different content for credit. This course may be taken for 1–3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## PHY-928 Independent Study

This course provides students with an opportunity to pursue or investigate a topic of interest that does not fit within the framework of regular course offerings. An independent study self-directed learning agreement must be discussed with and submitted to a faculty advisor prior to registration. This course may be repeated for credit with different content. Course can be taken for 1–3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## PHY-949 Special Topics

Special Topics expands the curriculum by allowing students to enroll for up to three credits in a specific course or program area. Subject matter may be an in-depth extension of the particular area and is developed by the teaching faculty to meet unique interests and needs of the students. This course may not duplicate another one already in the catalog. This course may be repeated for credit with different content. This course can be taken for 1–3.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

# PNN: Practical Nursing

## PNN-115 Introduction to Nursing

Introduction to nursing is the initial course for the student entering the profession of nursing and begins with an introduction to the history of nursing and nursing as a profession. Components of the nursing process are described and utilized with implementation of nursing technologies. The student will learn aspects of infection control, hygiene, safety, body alterations, therapeutic communication and healthcare prevention.

Credit Hours: 4 Lecture Hours: 64

Prerequisite(s): Minimum grade of B in HSC-108, BIO-168, BIO-173, and ENG-105.

Pre/Co-requisite(s): Minimum grade of B in PNN-116, PNN-117, PNN-122.

Course Type: Technical

## PNN-116 Introduction to Nursing Skills Lab

This course provides students the opportunity to demonstrate the practical application of basic nursing skills. There is emphasis on the critical elements of nursing procedures and the scientific rationale for performing the procedures correctly.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Prerequisite(s): Minimum grade of B in HSC-108, BIO-168, BIO-173, and ENG-105.

Pre/Co-requisite(s): Minimum grade of B in PNN-115 and PNN-1222. Minimum grade of Pass in PNN-117.

Course Type: Technical

## PNN-117 Nursing Clinical I

This course provides students with an introduction to clinical nursing. Emphasis is placed on utilizing the nursing process as a basis for clinical decision-making. Nursing professionalism and basic nursing skills are introduced.

Credit Hours: 1 Clinic Hours: 48

Prerequisite(s): Minimum grade of B in HSC-108, BIO-168, BIO-173, and ENG-105.

Pre/Co-requisite(s): Minimum grade of B in PNN-115, PNN-116, and PNN-122.

Course Type: Technical

## PNN-118 Nursing Clinical II

This course provides students with a continuation of clinical nursing. Emphasis is placed on utilizing the nursing process as a basis for clinical decision making and development of critical thinking. Nursing professionalism standards are reinforced and basic essential nursing skills such as SBAR hand off report, data analysis and trends are introduced.

Credit Hours: 1 Clinic Hours: 48

Prerequisite(s): Minimum grade of B in PNN-115, PNN-122, and PNN-116. Minimum grade of Pass in PNN-117.

Course Type: Technical

## PNN-122 Introduction to Pharmacology

This course introduces students to the basic principles of pharmacology and medication administration. The course will focus on the safe use, pharmacological principles, indications, and nursing implications related to drug therapy when caring for individuals and families across the life span. General characteristics of selected medications including pharmacokinetics, pharmacogenomics, side effects, adverse effects, contraindications, administration, and client education will be discussed.

Credit Hours: 2 Lecture Hours: 32

Prerequisite(s): Minimum grade of B in HSC-108, ENG-105, BIO-168, and BIO-173

Pre/Co-requisite(s): Minimum grade of B in PNN-115 and PNN-116. Minimum grade of Pass in PNN-117.

Course Type: Technical

## PNN-214 Basic Health Alterations A

This course builds on concepts learned in previous coursework from bio/psycho/social sciences, humanities, and nursing as well as from current evidence-based literature. Emphasis is placed on applying the nursing process to clients and families across the life span in a variety of settings. The content is organized according to body systems, focusing on nursing implications for clients with predictable health problems as well as related health promotion and disease prevention strategies. Systems included in this course are cardiovascular, hematology/oncology, fluids/ electrolytes, integumentary, gastrointestinal, and urinary/male reproductive.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of C in MAT-102, or MAT-128, or MAT-134, or MAT-156, or MAT-210, or MAT-216, or MAT-219. Minimum grade of B in PNN-115, PNN-116, and PNN-122. Grade of Pass in PNN-117.

Pre/Co-requisite(s): Minimum grade of C in BIO-151. Grade of Pass in PNN-218.

Course Type: Technical

## PNN-215 Basic Health Alterations B

This course builds on concepts learned in previous coursework from bio/psycho/social sciences, humanities, and nursing as well as from current evidence-based literature. Emphasis is placed on applying the nursing process to clients and families across the life span in a variety of settings. The content is organized according to body systems, focusing on nursing implications for clients with predictable health problems as well as related health promotion and disease prevention strategies. Systems included in this course are respiratory, endocrine, musculoskeletal, neurological, sensory, pain, and immune disorders.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of B in PNN-115, PNN-116, and PNN-122. Minimum grade of Pass in PNN-117 and PNN-118.

Pre/Co-requisite(s): Minimum grade of B in PNN-319. Minimum grade of Pass in PNN-221.

Course Type: Technical

## PNN-216 Health Promotion & Maintenance Across the Lifespan

This course builds on concepts learned in previous coursework from bio/psycho/social sciences, humanities, and nursing as well as from current evidence-based literature. Exemplars from maternal-child nursing and mental health nursing will be used in demonstrating the integration of principles of the nursing process and healthcare agencies. Cultural, ethical, and legal challenges will be discussed.

Credit Hours: 2 Lecture Hours: 32

Prerequisite(s): Minimum grade of C in MAT-121, or MAT-110, or MAT-102, or MAT-128, or MAT-134, or MAT-156, or MAT-210, or MAT-216, or MAT 219.

Pre/Co-requisite(s): Minimum grade of B in PNN-115, PNN-116, and PNN-122. Minimum grade of Pass in PNN-117 and PNN-118.

Course Type: Technical

## PNN-218 Nursing Clinical III

This clinical course provides opportunities for students to incorporate concepts from course work in bio/psycho/social sciences, humanities, nursing and current evidence-based literature to provide safe, competent care of adult clients experiencing common basic alterations in body systems. The course utilizes the nursing process in order to achieve best practice outcomes in a medical/surgical setting. Particular emphasis is placed on concepts of holistic care, client education and critical thinking for cardiovascular, hematology/oncology, fluids/electrolytes, integumentary, gastrointestinal, urinary/male reproductive health alterations.

Credit Hours: 1 Clinic Hours: 48

Prerequisite(s): Minimum grade of B in PNN-115 and PNN-116. Minimum grade of Pass in PNN-117.

Course Type: Technical

## PNN-219 Foundations of Nursing Skills Lab

This course provides practical application of basic nursing skills while incorporating concepts learned in previous coursework from bio/psycho/social sciences, humanities, and nursing as well as from current evidence-based literature. Students learn, practice and demonstrate basic nursing skills competency in skills. Emphasis is on the critical elements of nursing procedures and the scientific rationale for performing the procedures correctly.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Prerequisite(s): Minimum grade of B in PNN-115, PNN-116, and PNN-122. Minimum grade of Pass in PNN-117.

Pre/Co-requisite(s): Minimum grade of B in PNN-214. Minimum grade of Pass in PNN-218.

Course Type: Technical

## PNN-221 Nursing Clinical IV

This clinical course provides opportunities for students to incorporate concepts from course work in bio/psycho/social sciences, humanities, nursing and current evidence-based literature to provide safe, competent care of adult clients experiencing common basic alterations in body systems. The course utilizes the nursing process in order to achieve best practice outcomes in a medical/surgical setting. Particular emphasis is placed on concepts of holistic care, client education and critical thinking for respiratory, endocrine, musculoskeletal, neurological, sensory, pain, and immune disorders health alterations.

Credit Hours: 1 Clinic Hours: 48

Prerequisite(s): Minimum grade of B in PNN-115, PNN-116, and PNN-122. Minimum grade of Pass in PNN-117 and PNN-118.

Pre/Co-requisite(s): Minimum grade of B in PNN-219. Minimum grade of Pass in PNN-215.

Course Type: Technical

## PNN-319 Issues and Trends in Practical Nursing Leadership

This course is an overview of the role of the licensed practical nurse and introduces students to legal and ethical requirements, scopes of practice, career opportunities, and job searches. Preparation for the licensing exam is also included.

Credit Hours: 2 Lecture Hours: 32

Prerequisite(s): Minimum grade of B in PNN-115, PNN-116, and PNN-122. Minimum grade of Pass in PNN-117 and PNN-118.

Pre/Co-requisite(s): Minimum grade of B in PNN-214, PNN-215, PNN-216, and PNN-219.

Course Type: Technical

# POL: Political Science

## POL-111 American National Government

The study of the United States national government, specifically its institutions, the process of governing, the means by which individual citizens and groups influence that process, and the output of that governing process.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## POL-121 International Relations

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## POL-125 Comparative Government and Politics

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## POL-270 Social and Behavioral Research Methods

Develop skills for evaluating empirical and public literature dealing with the scientific study of behavior; experimental and nonexperimental methods of investigation; principles of research design and control; philosophy and ethics of scientific social science; planning, conducting and reporting research.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## POL-924 Honors Project

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. This course can be repeated with different content for credit. This course may be taken for 1–3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## POL-928 Independent Study

This course provides students with an opportunity to pursue or investigate a topic of interest that does not fit within the framework of regular course offerings. An independent study self-directed learning agreement must be discussed with and submitted to a faculty advisor prior to registration. This course may be repeated for credit with different content. Course can be taken for 1–3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## POL-949 Special Topics

Special Topics expands the curriculum by allowing students to enroll for up to three credits in a specific course or program area. Subject matter may be an in-depth extension of the particular area and is developed by the teaching faculty to meet unique interests and needs of the students. This course may not duplicate another one already in the catalog. This course may be repeated for credit with different content. This course can be taken for 1–3.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

# PSY: Psychology

## PSY-102 Human and Work Relations

Human Relations is the study of 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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## PSY-111 Introduction to Psychology

This course provides an introduction to the study of behavior and mental processes with emphasis in such areas as 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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## PSY-121 Developmental Psychology

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## PSY-241 Abnormal Psychology

Survey of the major classifications of psychological disorders. Emphasis will be on theoretical perspectives, descriptions of disorders, and therapeutic approaches.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): PSY-111

Course Type: General Education / Transfer

## PSY-251 Social Psychology

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.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): PSY-111 and SOC-110. Or instructor approval.

Course Type: General Education / Transfer

## PSY-261 Human Sexuality

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## PSY-262 Psychology of Gender

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.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): PSY-111

Course Type: General Education / Transfer

## PSY-270 Social and Behavioral Research Methods

Develop skills for evaluating empirical and public literature dealing with the scientific study of behavior; experimental and nonexperimental methods of investigation; principles of research design and control; philosophy and ethics of scientific social science; planning, conducting and reporting research.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## PSY-924 Honors Project

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. This course can be repeated with different content for credit.

May be taken for 1 – 3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## PSY-928 Independent Study

This course provides students with an opportunity to pursue or investigate a topic of interest that does not fit within the framework of regular course offerings. An independent study self-directed learning agreement must be discussed with and submitted to a faculty advisor prior to registration. This course may be repeated for credit with different content. Course can be taken for 1–3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## PSY-949 Special Topics

Special Topics expands the curriculum by allowing students to enroll for up to three credits in a specific course or program area. Subject matter may be an in-depth extension of the particular area and is developed by the teaching faculty to meet unique interests and needs of the students. This course may not duplicate another one already in the catalog. This course may be repeated for credit with different content. This course can be taken for 1–3.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

# PTA: Physical Therapist Assistant

## PTA-101 Introduction to PTA

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.

Credit Hours: 2 Lecture Hours: 32

Prerequisite(s): Minimum grade of B- in BIO-168. Minimum grade of C- in HSC-113. Minimum grade of C- in PSY-111 or PSY-121. Minimum grade of C- in SPC-101 or ENG-105.

Course Type: Technical

## PTA-111 PTA Fundamentals

This course presents a current and historical perspective on the role of the PTA within the health care team. Activities will introduce posture, body mechanics, and gait analysis, along with positioning and transfer techniques. Concepts of documentation, manual muscle testing, and range of motion assessment are taught.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Prerequisite(s): Minimum grade of B- in BIO-173. Minimum grade of C in PTA-101 and PTA-150 and PTA-120.

Course Type: Technical

## PTA-113 Fundamentals for PTA II

Introduction to physical disabilities and community barriers, independent activities of daily living, prosthetics, orthotics, static/dynamic splints, casts, braces, relaxation training, cardio-pulmonary function, airway clearance techniques, breathing exercises, functional assessment, functional exercise, balance assessment, and balance training.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of C in PTA-194, and PTA-211, and PTA-233, and PTA-242. Minimum grade of Pass in PTA-350.

Course Type: Technical

## PTA-120 Kinesiology

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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in HSC-113. Minimum grade of B- in BIO-168. Minimum grade of C- in ENG-105 or SPC-101. Minimum grade of C- in PSY-111 or PSY-121.

Course Type: Technical

## PTA-150 Pathophysiology

Describes the etiology, signs, symptoms, and treatment of diseases and disorders commonly encountered in physical therapy.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of B- in BIO-168. Minimum grade of C- in HSC-113. Minimum grade of C- in ENG-105 or SPC-101. Minimum grade of C- in PSY-111 or PSY-121.

Course Type: Technical

## PTA-194 Therapeutic Agents I

Introduction to the use of physical modalities for patient treatment. The principles of inflammation, cell repair, pain, and pain management will be introduced. The student will learn the physics, physiology, indications, contraindications, application, and patient preparation for the use of heat, cold, ultrasound, massage, vasocompression, wound care, hydrotherapy, and phonophoresis.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of C in PTA-202 and PTA-111. Minimum grade of Pass in PTA-310.

Course Type: Technical

## PTA-195 Therapeutic Agents II

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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of C in PTA-194, and PTA-211, and PTA-233, and PTA-242. Minimum grade of Pass in PTA-350.

Course Type: Technical

## PTA-202 Cardiopulmonary and Integumentary Rehab

This course is an introduction to PTA treatment of disorders of the cardiopulmonary, lymphatic, vascular and integumentary systems including wounds and burns. Course content will include diseases and conditions that impact these systems, common tests and measures for these patient populations and pharmacological and non-pharmacological management including physical therapy management of these conditions.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Prerequisite(s): Minimum grade of B- in BIO-173 and PTA-101. Minimum grade of C in PTA-120 and PTA-150.

Course Type: Technical

## PTA-211 Musculoskeletal I

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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of C in PTA-202 and PTA-111. Minimum grade of Pass in PTA-310.

Course Type: Technical

## PTA-212 Musculoskeletal II

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.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of C in PTA-194, and PTA-211, and PTA-233, and PTA-242, and PTA-350.

Course Type: Technical

## PTA-233 Therapeutic Exercise

Introduce the principles of exercise physiology, exercise selection, and progression to improve joint function, aerobic endurance, and muscle performance for patients throughout the lifespan. Provides application of course concepts and clinical problem solving during patient assessment and intervention application for a variety of general medical conditions. Lab will include therapeutic exercise instruction, clinical reasoning, and patient/client education through role play or patient case simulation.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Prerequisite(s): Minimum grade of C in PTA-202 and PTA-111. Minimum grade of Pass in PTA-310.

Course Type: Technical

## PTA-242 Adult Neurology

This course presents information on nervous system anatomy, function and normal/abnormal development; therapeutic approaches to central nervous system and peripheral nervous system dysfunctions involving the adult neurologically impaired patient.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Prerequisite(s): Minimum grade of C in PTA-111 and PTA-202. Minimum grade of Pass in PTA-310.

Course Type: Technical

## PTA-243 Pediatric Neurology

This course presents information on nervous system anatomy, function and normal/abnormal development of the pediatric patient; therapeutic approaches to central nervous system dysfunction throughout the life cycle; and assessment of the pediatric neurologic impaired patient.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Prerequisite(s): Minimum grade of C in PTA-242, and PTA-194, and PTA-211, and PTA-233. Minimum grade of Pass in PTA-310.

Course Type: Technical

## PTA-284 PTA Professional Issues

This course covers topics relevant to the professional development and communication. Topics include history of the physical therapy profession, cultural competence, learning and communications styles, ethical and legal aspects of care, structure and function of institutions, wellness, reimbursement systems and special topics in healthcare. Employment topics including resume writing, interviewing, performance appraisal and work/life issues will be covered. The course also introduces research literacy as it relates to evidence based practice.

Credit Hours: 2 Lecture Hours: 32

Prerequisite(s): Minimum grade of C in PTA-113, and PTA-212, and PTA-195, and PTA-243. Minimum grade of Pass in PTA-400.

Course Type: Technical

## PTA-310 PTA Clinical I

The course will allow for observation and application of physical therapy interventions and elemental principles of patient care to uncomplicated patients under direct supervision and discretion of the Clinical Instructor. The experience will occur at the end of the summer term, including on-site clinical experience in local settings. This course ensures the student maintains all required health care certifications and documentation.

Credit Hours: 1 Co-op Hours: 64

Prerequisite(s): Minimum grade of C in PTA-101, and PTA-120, and PTA-150. Minimum grade of B- in BIO-173.

Course Type: Technical

## PTA-350 PTA Clinical II

This course consists of clinical experiences occurring at the end of the semester. The students will have the opportunity to apply skills and knowledge developed in previous course work per the discretion of the Clinical Instructor.

Credit Hours: 2 Co-op Hours: 128

Prerequisite(s): Minimum grade of Pass in PTA-310.

Pre/Co-requisite(s): Minimum grade of C in PTA-211, and PTA-194, and PTA-242, and PTA-233.

Course Type: Technical

## PTA-400 PTA Clinical III

This course consists of clinical experiences occurring at the end of the semester. The students will have the opportunity to apply skills and knowledge developed in previous course work per the discretion of the Clinical Instructor.

Credit Hours: 2 Co-op Hours: 128

Prerequisite(s): Minimum grade of Pass in PTA-350.

Pre/Co-requisite(s): Minimum grade of C in PTA-195, and PTA-212, and PTA-113, and PTA-243.

Course Type: Technical

## PTA-450 PTA Clinical IV

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 clinical staff. Location of clinical sites may require travel away from the local region, including out-of-state.

Credit Hours: 5 Co-op Hours: 320

Prerequisite(s): Minimum grade of C in PTA-113, and PTA-212, and PTA-195, and PTA-243. Minimum grade of Pass in PTA-400.

Course Type: Technical

## PTA-901 Review for Physical Therapist Assistant Board Exam

This course is designed to remediate the content included on the Physical Therapist Assistant board exam.

Credit Hours: 1 Lecture Hours: 16

Course Type: Technical

# RCP: Respiratory Therapy

## RCP-100 Introduction to Respiratory Care

This course introduces the student to the fundamentals of Respiratory Care. The field of Respiratory Care will be examined to determine opportunities and policies in the profession. It will establish a strong foundation in bedside assessment including vital signs, chest assessment, evaluating work of breathing, and patient history. Also covered will be the therapeutic uses of medical gases, infection control procedures, and proper maintenance of records. Humidity and aerosol therapy will be studied in detail.

Must complete all Pre-Respiratory courses with a cumulative GPA of 2.75.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## RCP-260 Airway Maintenance Procedures

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.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Co-requisite(s): A minimum grade of C in RCP-100.

Course Type: Technical

## RCP-315 Cardiopulmonary Therapeutics

This course is a general review 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.

Credit Hours: 4 Lecture Hours: 48 Lab Hours: 32

Prerequisite(s): Minimum grade of C in RCP-100 and RCP-260.

Co-requisite(s): Minimum grade of C in RCP-680.

Course Type: Technical

## RCP-350 Pulmonary Pathology

This course examines common medical disorders and the effect on the cardiopulmonary system. It includes disorder etiology, anatomic changes, and clinical presentation. Evaluation of signs and symptoms will allow the student to generate a diagnosis and design a multidisciplinary treatment plan. Patient case studies and clinical simulations will be a major focus.

Credit Hours: 3 Lecture Hours: 48

Pre/Co-requisite(s): A minimum grade of C in RCP-315.

Course Type: Technical

## RCP-410 Cardio/Pulmonary Diagnostics

This course covers advanced cardiopulmonary diagnostic tests. It includes pulmonary function tests, stress tests, imaging studies, noninvasive monitors, bronchoscopies, cardioversions, polysomnography, indwelling lines, and pulmonary rehabilitation. Ethical issues for Respiratory Therapists will also be discussed.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Co-requisite(s): A minimum grade of C in RCP-565 or RCP-690.

Course Type: Technical

## RCP-561 Introduction to Ventilator Support

This course prepares the student to initiate and manage invasive and noninvasive mechanical ventilation. Discussion topics will include modes of ventilation, ventilator settings, and ventilator alarm limits. Principles of mechanical ventilation and the effects of positive pressure will also be studied.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Prerequisite(s): Minimum grade of C in RCP-100 and RCP-260.

Pre/Co-requisite(s): Minimum grade of C in RCP-315 and RCP-680.

Course Type: Technical

## RCP-565 Intensive Respiratory Care

This course expands the student's ability to oxygenate and ventilate a patient while managing a mechanical ventilator. The student will utilize ventilator graphics to change settings and troubleshoot problems as the patient improves or deteriorates. Special monitoring systems will be discussed, including indwelling arterial lines, cardiac monitors, hemodynamic monitors, transcutaneous monitors, and capnographs. Performance and interpretation of electrocardiograms are highlighted. Medications commonly given to critical patients in the Intensive Care Unit will also be discussed.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of C in RCP-315 and RCP-561.

Co-requisite(s): Minimum grade of C in RCP-690.

Course Type: Technical

## RCP-600 Neonatal/Pediatric Respiratory Therapy

This course provides in-depth knowledge into the complex problems associated with the neonatal and pediatric population. Neonatal and pediatric assessment, monitoring, and respiratory intervention will be a major focus. Abnormal conditions that occur during the transition from fetal development, to the perinatal period, to the pediatric stages of life will also be discussed. Simulation will be used to demonstrate the ability to identify and treat common abnormalities found in this population.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of C in RCP-100 and RCP-260.

Pre/Co-requisite(s): Minimum grade of C in RCP-680.

Course Type: Technical

## RCP-680 Clinical Respiratory Care

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, tracheostomy care, and ABG sampling.

Credit Hours: 4 Clinic Hours: 192

Prerequisite(s): Minimum grade of C in RCP-100 and RCP-260.

Course Type: Technical

## RCP-690 Clinical Intensive Care

This course expands clinical situations into the intensive care units, which includes invasive and noninvasive ventilators and hemodynamically unstable patients. There will be a specialty rotation to develop awareness of different aspects of neonatal, pediatric, and adult ICUs, and other special procedures.

Credit Hours: 8 Clinic Hours: 384

Prerequisite(s): Minimum grade of C in RCP-350, and RCP-561, and RCP-680.

Pre/Co-requisite(s): Minimum grade of C in RCP-565.

Course Type: Technical

## RCP-875 Respiratory Care Applications

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.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Prerequisite(s): Minimum grade of C in RCP-315, and RCP-350, and RCP-561, and RCP-600.

Pre/Co-requisite(s): Minimum grade of C in RCP-410, and RCP-565, and RCP-690.

Course Type: Technical

## RCP-900 Clinical Preceptor

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 interruptions and new situations. The preceptor will monitor the student at all times and will offer support if needed.

Credit Hours: 4 Co-op Hours: 256

Prerequisite(s): A minimum grade of C in RCP-680 and RCP-690.

Course Type: Technical

## RCP-910 Respiratory Care RRT Review

This course is designed to test the student's ability to successfully earn passing scores on advanced-level examinations. Although advanced-level examinations will be the focus of this course, review of entry-level examination concepts will also be provided. Mock Board examinations will be administered after completion of a comprehensive review seminar.

Credit Hours: 2 Lecture Hours: 32

Course Type: Technical

# RDG: Reading

## RDG-039 College Preparatory Reading II

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.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Equivalent placement score.

Course Type: Developmental

## RDG-040 College Preparatory Reading III

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.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): RDG-039 or equivalent placement score.

Course Type: Developmental

# REL: Religion

## REL-101 Survey of World Religions

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.

Credit Hours: 3  Lecture Hours: 48

Course Type: General Education / Transfer

## REL-130 Introduction to Religions of the East

This course is an interdisciplinary course that will explore the emergence, development, and diversification of the three cultural regions? religious traditions. Student participants in the 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.

Credit Hours: 3  Lecture Hours: 48

Course Type: General Education / Transfer

# SDV: Student Development

## SDV-108 The College Experience

This course is designed to orient students to the college campus, resources, services, and expectations. This course also provides a brief overview and practice of study skills and academic strategies.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## SDV-109 College 101

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## SDV-131 Career Exploration

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.

Credit Hours: 2 Lecture Hours: 32

Course Type: General Education / Transfer

## SDV-149 Exploration of Engineering Careers

This course introduces students to the field of engineering and takes a look at careers in a wide variety of settings. This class will include a number of career exploration methods and experiences, with a focus on college and career readiness and employability skills.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## SDV-159 Exploration of Business Careers

This course introduces students to the different fields of business and takes a look at careers in a wide variety of settings. This class will include a number of career exploration methods and experiences, with a focus on college and career readiness and employability skills.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## SDV-161 Portfolio Development

This course provides students with the writing and research skill 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 General Technology program.

Credit Hours: 2 Lecture Hours: 32

Course Type: Technical

# SOC: Sociology

## SOC-110 Introduction to Sociology

This course surveys the basic principles, concepts, and research findings of social life from small groups to societies. The course examines a range of sociological explanations for the various forms of social behaviors and establishes a basis for reflection and further study in the field.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## SOC-115 Social Problems

This course introduces students to a sociological examination of contemporary social problems. Specifically, this course focuses on the interconnection of various social problems, the significance of social inequality in creating and maintaining social problems, and the roles of both human agency and social policy in providing solutions to these problems.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## SOC-120 Marriage and Family

Marriage and family is studied from a sociological viewpoint. Content areas focus on the history of family, gender roles, power in relationships, diverse family structures, and functions of the family and dysfunctions. This course examines courtship and marriage, family life cycle, parenthood, interpersonal relationships, and marital adjustments. Upon completion, students should be able to analyze the family as a social institution, and identify social forces which influence its development and change.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## SOC-135 Death and Dying

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## SOC-160 Introduction to Social Work

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## SOC-180 Social Work Interactional Skills

This course focuses on students gaining an understanding and beginning mastery of interpersonal and interactional helping skills utilized by social workers in practice. The organization of the course and the learning methods used focus on both didactic and experiential learning. The content of the course is taught through lecture, discussion, and interactional sessions in which the students learn through individual and group exercises, role play, and activity experiences.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): Minimum grade of C- in SOC-160.

Pre/Co-requisite(s): Minimum grade of Pass in SOC-181.

Course Type: General Education / Transfer

## SOC-181 Field Experience

This course provides students with a beginning “hands-on” experience to examine the operations of a social service agency, to observe the functions and activities of social service workers, and to develop entry-level social service skills with clients. Students will complete a field experience with a social service agency and provided professional supervision by an agency representative who has the educational and professional experience in the student’s field of interest. This initial field experience is helpful to students in determining the compatibility of their own values, personal qualities, skills, and level of commitment to the social work practice. Students will have the opportunity to assess their field experience to make an informed decision on future educational and career plans.

Credit Hours: 1 Lab Hours: 32

Pre/Co-requisite(s): Minimum grade of C- in SOC-180 Social Work Interactional Skills.

Course Type: General Education / Transfer

## SOC-200 Minority Group Relations

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## SOC-202 Race and Ethnic Relations

This course provides a sociological study of historical and contemporary race relations in the United States. Using a variety of materials–including research-based evidence and personal narrative–students will gain an understanding of how and why race matters in everyday life. In addition, the course examines racial justice movements and the possibilities of a racially-just society.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## SOC-205 Identity and Inequity in U.S. Society

This course provides an introduction to the sociological study of group relations in the United States. The focus will be on race, class, and gender. However, other identities (such as religion, sexual orientation, age, and abilities) will also be explored. Students will gain a better understanding of the relationship between individuals and society, as well as of the experiences of various minority groups.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## SOC-208 Introduction to Cultural Anthropology

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. (Same as ANT-105)

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## SOC-220 Sociology of Aging

This introductory gerontology course uses sociological tools to examine the influence of an aging society, explores the process of aging, old age as a stage of life and the impact of aging both personally and on society as a whole.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## SOC-251 Social Psychology

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.

Credit Hours: 3 Lecture Hours: 48

Prerequisite(s): PSY-111, or SOC-110, or instructor approval.

Course Type: General Education / Transfer

## SOC-261 Human Sexuality

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.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## SOC-270 Social and Behavioral Research Methods

Develop skills for evaluating empirical and public literature dealing with the scientific study of behavior; experimental and nonexperimental methods of investigation; principles of research design and control; philosophy and ethics of scientific social science; planning, conducting and reporting research.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## SOC-290 Social Movements

Using sociological concepts and theories, this course explores social movements and their relationship to social change. The course investigates various social movements in the twentieth and twenty-first centuries, including both U.S. and global movements. Examples of movements examined include struggles for economic and racial justice, women’s and LGBT+ movements, movements for democracy and human rights, the environmental movement, and the new right.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## SOC-924 Honors Project

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.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## SOC-928 Independent Study

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

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## SOC-949 Special Topics

Special Topics expands the curriculum by allowing students to enroll for up to three credits in a specific course or program area. Subject matter may be an in-depth extension of the particular area and is developed by the teaching faculty to meet unique interests and needs of the students. This course may not duplicate another one already in the catalog. This course may be repeated for credit with different content. This course can be taken for 1–3.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## SOC-999 Study Abroad

This course explores relative differences between the student's country and another country with emphasis in discipline of study. Topics include history, geography, culture, food, language, and discipline specific topics. This course can be repeated with different content for credit.

This course can be taken for 1–5 credits hours.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

# SPC: Speech

## SPC-101 Fundamentals of Oral Communication

This course introduces students to the oral communication process and how it affects human interaction There will be an emphasis on developing interpersonal, small group, and public speaking skills. Students will be involved in activities that provide opportunity for the understanding and improvement of their oral communication skills.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## SPC-112 Public Speaking

This course studies the fundamentals of public speaking, emphasizing the process of speech preparation and delivery in various contexts.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## SPC-120 Intercultural Communications

Intercultural Communication explores basic principles and theories of intercultural communication with opportunities to gain communication competence through immersion experiences and cross-cultural interactions.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## SPC-122 Interpersonal Communication

Interpersonal Communication applies communication theories and concepts to real world friendships, romantic partnerships, families and workplace relationships. The course focuses on improving interpersonal skills and increasing communication competence.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## SPC-132 Group Communication

This course focuses on the principles, theories, and processes of small group communication. The primary goal of this course is for students to apply content to group communication situations to function more effectively.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## SPC-140 Oral Interpretation

This course will explore literature through performance. Students will learn to select, analyze, interpret and perform literature of various types using vocal and physical techniques.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## SPC-924 Honors Project

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. This course can be repeated with different content for credit. This course may be taken for 1–3 credits.

Credit Hours: 1  Lecture Hours: 16

Course Type: General Education / Transfer

## SPC-928 Independent Study

This course provides students with an opportunity to pursue or investigate a topic of interest that does not fit within the framework of regular course offerings. An independent study self-directed learning agreement must be discussed with and submitted to a faculty advisor prior to registration. This course may be repeated for credit with different content. Course can be taken for 1–3 credits.

Credit Hours: 1  Lecture Hours: 16

Course Type: General Education / Transfer

## SPC-949 Special Topics

Special Topics expands the curriculum by allowing students to enroll for up to three credits in a specific course or program area. Subject matter may be an in-depth extension of the particular area and is developed by the teaching faculty to meet unique interests and needs of the students. This course may not duplicate another one already in the catalog. This course may be repeated for credit with different content. This course can be taken for 1–3.

Credit Hours: 1  Lecture Hours: 16

Course Type: General Education / Transfer

# TDT: Truck Driving and Transportation

## TDT-101 Interpersonal Relations

This course covers personal and work safety and health, also included in the course are written and oral communication skills. Instruction is provided in employment seeking skills, cover letters, resumes, thank you letters, letters of application, personal record keeping and desirable work attitude.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## TDT-115 Transportation Industry and Driver Regulations

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.

Credit Hours: 4 Lecture Hours: 32 Lab Hours: 64

Course Type: Technical

## TDT-118 Driving Range I

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.

Credit Hours: 6 Lecture Hours: 16 Lab Hours: 160

Co-requisite(s): TDT-115.

Course Type: Technical

## TDT-125 Driving Range II

This course prepares students with more opportunity for additional behind the wheel training in operating trucks in a rural and city setting, including nighttime driving skills and knowledge in managing emergencies, accidents, first aid, CPR and Department of Transportation regulations on transporting hazardous materials. Students will prepare for a Class A Commercial Driver's License with all endorsements.

Credit Hours: 3 Lab Hours: 96

Prerequisite(s): Minimum grade of D in TDT-115.

Course Type: Technical

## TDT-938 Truck Transportation On-the-Job Training

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.

Credit Hours: 3 Co-op Hours: 192

Prerequisite(s): Minimum grade of D in TDT-101, and TDT-115, and TDT-118.

Course Type: Technical

# WBL: Work-Based Learning

## WBL-100 Exploring Careers

This course will provide guidance in choosing a career goal and preparing for employment. Emphasis will be placed on identifying interests, abilities, and values, and exploring options for careers. Students will learn how to access labor market information and employment trends. Additionally, students will develop the skills and aptitudes necessary to obtain employment, emphasizing the development of characteristics associated with job success. This course can be taken for 1 – 3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: Technical

## WBL-101 Exploring Careers: Agriculture, Food, and Natural Resources

This course will provide guidance in choosing a career goal and preparing for employment in Agriculture, Food, and Natural Resources careers. Emphasis will be placed on identifying interests, abilities, and values, and exploring options for careers. Students will learn how to access labor market information and employment trends. Additionally, students will develop the skills and aptitudes necessary to obtain employment in these fields, emphasizing the development of characteristics associated with job success. This course can be taken for 1–3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: Technical

## WBL-102 Exploring Careers: Science, Technology, Engineering, and Mathematics

This course will provide guidance in choosing a career goal and preparing for employment in Science, Technology, Engineering, or Manufacturing careers. Emphasis will be placed on identifying interests, abilities, and values, and exploring options for careers. Students will learn how to access labor market information and employment trends. Additionally, students will develop the skills and aptitudes necessary to obtain employment in these fields, emphasizing the development of characteristics associated with job success. This course can be taken for 1 – 3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: Technical

## WBL-103 Exploring Careers: Human Services

This course will provide guidance in choosing a career goal and preparing for employment in Human Services careers. Emphasis will be placed on identifying interests, abilities, and values, and exploring options for careers. Students will learn how to access labor market information and employment trends. Additionally, students will develop the skills and aptitudes necessary to obtain employment in these fields, emphasizing the development of characteristics associated with job success. This course can be taken for 1–3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: Technical

## WBL-104 Exploring Careers: Health Sciences

This course will provide guidance in choosing a career goal and preparing for employment in Health Sciences careers. Emphasis will be placed on identifying interests, abilities, and values, and exploring options for careers. Students will learn how to access labor market information and employment trends. Additionally, students will develop the skills and aptitudes necessary to obtain employment in these fields, emphasizing the development of characteristics associated with job success. This course can be taken for 1 – 3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: Technical

## WBL-105 Exploring Careers: Business, Finance, Marketing, and Management

This course will provide guidance in choosing a career goal and preparing for employment in Business, Finance, Marketing, and Management careers. Emphasis will be placed on identifying interests, abilities, and values, and exploring options for careers. Students will learn how to access labor market information and employment trends. Additionally, students will develop the skills and aptitudes necessary to obtain employment in these fields, emphasizing the development of characteristics associated with job success. This course can be taken for 1 – 3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: Technical

## WBL-106 Exploring Careers: Information Solutions

This course will provide guidance in choosing a career goal and preparing for employment in Information Solutions careers. Emphasis will be placed on identifying interests, abilities, and values, and exploring options for careers. Students will learn how to access labor market information and employment trends. Additionally, students will develop the skills and aptitudes necessary to obtain employment in these fields, emphasizing the development of characteristics associated with job success. This course can be taken for 1–3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: Technical

## WBL-107 Exploring Careers: Applied Digital, Visual, and Communication Arts

This course will provide guidance in choosing a career goal and preparing for employment in Applied Digital, Visual, and Communication Arts careers. Emphasis will be placed on identifying interests, abilities, and values, and exploring options for careers. Students will learn how to access labor market information and employment trends. Additionally, students will develop the skills and aptitudes necessary to obtain employment in these fields, emphasizing the development of characteristics associated with job success. This course can be taken for 1–3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: Technical

## WBL-108 Exploring Careers: Industrial Technology

This course will provide guidance in choosing a career goal and preparing for employment in Industrial Technology careers. Emphasis will be placed on identifying interests, abilities, and values, and exploring options for careers. Students will learn how to access labor market information and employment trends. Additionally, students will develop the skills and aptitudes necessary to obtain employment in these fields, emphasizing the development of characteristics associated with job success. This course can be taken for 1–3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: Technical

## WBL-109 Exploring Careers: Government and Criminal Justice

This course will provide guidance in choosing a career goal and preparing for employment in Government and Criminal Justice careers. Emphasis will be placed on identifying interests, abilities, and values, and exploring options for careers. Students will learn how to access labor market information and employment trends. Additionally, students will develop the skills and aptitudes necessary to obtain employment in these fields, emphasizing the development of characteristics associated with job success. This course can be taken for 1–3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: Technical

## WBL-110 Employability Skills

This course is designed to assist students in developing the skills necessary to obtain employment and to learn and practice the skills and attitudes required for job success. Students will practice resume writing, job application completion, and interviewing techniques. Additionally, students will practice workplace problem solving strategies, and demonstrate skills required to work in a diverse environment.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## WBL-140 Workplace Project Based Learning: Information Solutions

Students in this course learn the concept of project based learning in the workplace, and develop and implement projects in cooperation with local businesses, community organizations, or non-profit agencies. Projects are developed under the supervision of a college faculty member. This course can be taken for 2 or 3 credits.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 96

Course Type: Technical

## WBL-141 Workplace Project Based Learning: Agriculture, Food, and Natural

Students in this course learn the concept of project based learning in the workplace, and develop and implement projects in cooperation with local businesses, community organizations, or non-profit agencies in the Agriculture, Food, and Natural Sciences employment sector. Projects are developed under the supervision of a college faculty member. This course can be taken for 2–3 credits.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Course Type: Technical

## WBL-142 Workplace Project Based Learning: Science, Technology, Engineering, and Mathematics

Students in this course learn the concept of project based learning in the workplace, and develop and implement projects in cooperation with local businesses, community organizations, or non-profit agencies in the Applied Sciences, Technology, Engineering, and Manufacturing employment sector. Projects are developed under the supervision of a college faculty member. This update has been made.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 96

Course Type: Technical

## WBL-143 Workplace Project Based Learning: Human Services

Students in this course learn the concept of project based learning in the workplace, and develop and implement projects in cooperation with local businesses, community organizations, or non-profit agencies in the Human Services employment sector. Projects are developed under the supervision of a college faculty member. This course can be taken for 2–3 credits.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Course Type: Technical

## WBL-144 Workplace Project Based Learning: Health Sciences

Students in this course learn the concept of project based learning in the workplace, and develop and implement projects in cooperation with local businesses, community organizations, or non-profit agencies in the Health Sciences employment sector. Projects are developed under the supervision of a college faculty member. This course can be taken for 2–3 credits.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Course Type: Technical

## WBL-145 Workplace Project Based Learning: Business, Finance, Marketing

Students in this course learn the concept of project based learning in the workplace, and develop and implement projects in cooperation with local businesses, community organizations, or non-profit agencies in the Business, Finance, Marketing, and Management employment sector. Projects are developed under the supervision of a college faculty member. This course can be taken for 2–3 credits.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Course Type: Technical

## WBL-146 Workplace Project Based Learning: Information Solutions

Students in this course learn the concept of project based learning in the workplace and will develop and implement projects in cooperation with local businesses, community organizations, or non-profit agencies in the Information Solutions employment sector. Projects are developed under the supervision of a college faculty member.

Credit Hours: 3 Lecture Hours: 0 Lab Hours: 96

Course Type: Technical

## WBL-147 Workplace Project Based Learning: Applied Digital, Visual, and Communication Arts

Students in this course learn the concept of project based learning in the workplace, and develop and implement projects in cooperation with local businesses, community organizations, or non-profit agencies in the Applied Digital, Visual, and Communication Arts employment sector. Projects are developed under the supervision of a college faculty member. This course can be taken for 2–3 credits.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Course Type: Technical

## WBL-148 Workplace Project Based Learning: Industrial Technology

Students in this course will learn the concept of project-based learning in the workplace and develop and implement projects in cooperation with local businesses, community organizations, or non-profit agencies in the Industrial Technology employment sector. Projects are developed under the supervision of a college faculty member. This course can be taken for 2–3 credits.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Course Type: Technical

## WBL-149 Workplace Project Based Learning: Government and Criminal Justice

Students in this course learn the concept of project based learning in the workplace, and develop and implement projects in cooperation with local businesses, community organizations, or non-profit agencies in the Government and Criminal Justice employment sector. Projects are developed under the supervision of a college faculty member. This course can be taken for 2–3 credits.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Course Type: Technical

## WBL-150 Job Shadowing

Students in this course will explore a field of interest while developing research skills, professionalism, and building occupational knowledge. Students will visit workplaces of interest to learn about specific jobs and professional requirements, and to develop a basic knowledge of the organization’s structure and values. This course can be taken for 1–2 credits.

Credit Hours: 1 Lecture Hours: 8 Lab Hours: 16

Course Type: Technical

## WBL-151 Job Shadowing: Agriculture, Food, and Natural Resources

Students in this course will explore the field of Agriculture, Food, and Natural Resources while developing research skills, professionalism, and building occupational knowledge. Students will visit workplaces in this employment sector to learn about specific jobs and professional requirements, and to develop a basic knowledge of the organization’s structure and values. This course can be taken for 1–2 credits.

Credit Hours: 1 Lecture Hours: 8 Lab Hours: 16

Course Type: Technical

## WBL-152 Job Shadowing: Science, Technology, Engineering, and Mathematics

Students in this course will explore the field of Science, Technology, Engineering, and Manufacturing while developing research skills, professionalism, and building occupational knowledge. Students will visit workplaces in this employment sector to learn about specific jobs and professional requirements, and to develop a basic knowledge of the organization's structure and values. This course can be taken for 1–2 credits.

Credit Hours: 1 Lecture Hours: 8 Lab Hours: 16

Course Type: Technical

## WBL-153 Job Shadowing: Human Services

Students in this course will explore the field of Human Services while developing research skills, professionalism, and building occupational knowledge. Students will visit workplaces in this employment sector to learn about specific jobs and professional requirements, and to develop a basic knowledge of the organization's structure and values. This course can be taken for 1–2 credits.

Credit Hours: 1 Lecture Hours: 8 Lab Hours: 16

Course Type: Technical

## WBL-154 Job Shadowing: Health Sciences

Students in this course will explore the field of Health Sciences while developing research skills, professionalism, and building occupational knowledge. Students will visit workplaces in this employment sector to learn about specific jobs and professional requirements, and to develop a basic knowledge of the organization’s structure and values. This course can be taken for 1–2 credits.

Credit Hours: 1 Lecture Hours: 8 Lab Hours: 16

Course Type: Technical

## WBL-155 Job Shadowing: Business, Finance, Marketing, and Management

Students in this course will explore the fields of Business, Finance, Marketing, and Management while developing research skills, professionalism, and building occupational knowledge. Students will visit workplaces in this employment sector to learn about specific jobs and professional requirements, and to develop a basic knowledge of the organization's structure and values. This course can be taken for 1–2 credits.

Credit Hours: 1 Lecture Hours: 8 Lab Hours: 16

Course Type: Technical

## WBL-156 Job Shadowing: Information Solutions

Students in this course will explore the field of Information Solutions while developing research skills, professionalism, and building occupational knowledge. Students will visit workplaces in this employment sector to learn about specific jobs and professional requirements, and to develop a basic knowledge of the organization’s structure and values. This course can be taken for 1–2 credits.

Credit Hours: 1 Lecture Hours: 8 Lab Hours: 16

Course Type: Technical

## WBL-157 Job Shadowing: Applied Digital, Visual, and Communication Arts

Students in this course will explore the field of Applied Digital, Visual, and Communication Arts while developing research skills, professionalism, and building occupational knowledge. Students will visit workplaces in this employment sector to learn about specific jobs and professional requirements, and to develop a basic knowledge of the organization's structure and values. This course can be taken for 1–2 credits.

Credit Hours: 1 Lecture Hours: 8 Lab Hours: 16

Course Type: Technical

## WBL-158 Job Shadowing: Industrial Technology

Students enrolled in this course will explore the field of Industrial Technology while developing research skills, professionalism, and building occupational knowledge. Students will visit workplaces in this employment sector to learn about specific jobs and professional requirements, and to develop a basic knowledge of an organization's structure and workplace values. This course can be taken for 1–2 credits.

Credit Hours: 1 Lecture Hours: 8 Lab Hours: 16

Course Type: Technical

## WBL-159 Job Shadowing: Government and Criminal Justice`

Students in this course will explore the field of Government and Criminal Justice while developing research skills, professionalism, and building occupational knowledge. Students will visit workplaces in this employment sector to learn about specific jobs and professional requirements, and to develop a basic knowledge of the organization’s structure and values. This course can be taken for 1–2 credits.

Credit Hours: 1 Lecture Hours: 8 Lab Hours: 16

Course Type: Technical

# WDV: Web Development

## WDV-102 Introduction to Web Development

This course introduces the current standard of HTML and discusses upcoming versions. Students will learn the basics of CSS for design and layout using both text and multimedia. Website maintenance cycles and roles used in the cycles will be introduced. By using FTP, students will create and maintain small web page on a live web server. By using a text based editor, student will learn to code in an HTML editor rather than just the visual aspect to gain greater control of the code. Best design practices will be introduced.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## WDV-105 Web Layouts

This course is designed to give the student the knowledge of layouts and design of web sites. Students will use a graphic editor, such as Adobe Photoshop, to convert a visual image layout to a working HTML and CSS layout. This course goes over aspects of design to content in making a great web site.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## WDV-221 JavaScript

The course will introduce the concepts of the JavaScript programming language and its related logic structures within an Internet browser. This course will discuss the concepts of Dynamic HTML which is the interactions of JavaScript, Cascading Style Sheets (CSS), HTML, and the Document Object Model. Students will create dynamic forms, change content, and perform client-side user-driven activities within a web page application.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## WDV-300 Advanced Topics in Web Development

This course is designed to give students a more in depth study of web sites. Topics will include security, troubleshooting/debugging, testing and analytics. The course will help the students develop a toolbox of techniques to improve their programming skills for web application development.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in CIS-121 and CIS-231.

Course Type: Technical

## WDV-321 Advanced Javascript

Use Javascript to implement client-side form data validation, browser compatibility, and motion as well as other dynamic content changes. Create dynamic cross-browser compatible user-driven presentation and content with Javascript and CSS.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Course Type: Technical

## WDV-600 Project Development

This course is designed to allow students to create a showcase project of their skills in a format and language of the student's choice. Project management skills introduced from other classes will be reinforced.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in CIS-217 and CIS-225.

Course Type: Technical

## WDV-800 Portfolio

This course will help students present the best possible portfolio. This course will guide students in picking the right pieces to exemplify their skills. Students will create a portfolio to take job hunting. Students will learn about a number of aspects in job hunting. Students will also do a team based project for their portfolio.

Credit Hours: 3 Lecture Hours: 32 Lab Hours: 32

Prerequisite(s): Must be a 4th semester graduating student to take this class.

Course Type: Technical

## WDV-928 Independent Study

This course provides students with an opportunity to pursue or investigate a topic of interest that does not fit within the framework of regular course offerings. An independent study self-directed learning agreement must be discussed with and submitted to a faculty advisor prior to registration. This course can be repeated with different content for credit. This course can be taken for 1–3 credit hours.

Credit Hours: 1 Lecture Hours: 32

Course Type: Technical

## WDV-930 Internship

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.

Credit Hours: 3 Co-op Hours: 192

Prerequisite(s): Minimum grade of C- in CIS-217, and CIS-225, and CIS-206. Instructor consent.

Course Type: Technical

## WDV-931 Internship

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.

Credit Hours: 2 Co-op Hours: 128

Prerequisite(s): Minimum grade of C- in CIS-231 and CIS-215. Instructor approval.

Course Type: Technical

# WEL: Welding

## WEL-228 Introduction to Welding, Safety, and Health of Welders: SENSE1

Provides students with orientation to the welding profession and will cover the basics of safety and health within the welding profession. This course aligns to SENSE Level 1, Module 1 and Module 2 – Key Indicators 1-6.

Credit Hours: 1 Lecture Hours: 16

Course Type: Technical

## WEL-233 Print Reading and Welding Symbol Interpretation: SENSE1

Provides instruction in interpreting elements of welding prints (drawings or sketches), focusing on measurement, American Welding Society welding symbols, and fabrication requirements. Students will demonstrate how to prepare, assemble and tack weld parts according to drawings or sketches, using proper materials and tools. This course aligns to SENSE Level 1 Module 3: Drawing and Welding Symbol Interpretation, Key Indicators 1 and 2.

Credit Hours: 3 Lecture Hours: 48

Course Type: Technical

## WEL-244 Gas Metal Arc Welding Short Circuit Transfer: SENSE1

Focuses on proper weld safety, machine setup and welding techniques of Gas Metal Arc Welding Short-Circuiting Transfer. Students perform American Welding Society compliant welds on carbon steel, in flat, horizontal, vertical and overhead positions. This course will prepare students to take an AWS welder certification test, which is recommended for its successful completion. This course aligns with SENSE Level 1 Module 5: Gas Metal Arc Welding Key Indicators 1-7. Also aligns to SENSE Level 3, Drawing and Welding Symbol Interpretation, Key Indicator 3.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in WEL-228.

Course Type: Technical

## WEL-245 Gas Metal Arc Welding Spray Transfer: SENSE1

Focuses on proper weld safety, machine setup and welding techniques of Gas Metal Arc Welding Spray Transfer. Students perform American Welding Society compliant welds on carbon steel in flat and horizontal positions. This course will prepare students to take an AWS welder certification test, which is recommended for its successful completion. It aligns with SENSE Level 1 Module 5 Key Indicators 1, 2 and 8-12, as well as Module 2 - Indicator 7, Module 3- Key Indicator 3, and Module 9 – Key Indicator 2.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Pre/Co-requisite(s): A minimum grade of C- in WEL-228.

Course Type: Technical

## WEL-252 Gas Tungsten Arc Welding for Aluminum: SENSE1

Focuses on proper welder safety, machine setup and welding techniques for Gas Tungsten Arc Welding (GTAW). Students perform American Welding Society (AWS) compliant welds on aluminum in flat and horizontal positions. This course will prepare students to take an AWS welder certification test, which is recommended for successful completion of this course. This course aligns to SENSE Level I, Module 7 Key Indicators 1, 2 and 13 – 17, as well as Module 2 - Key Indicator 7, Module 3 - Key Indicator 3, and Module 9 – Key Indicator 2.

Credit Hours: 1 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in WEL-228.

Co-requisite(s): Minimum grade of C- in WEL-253, and WEL-354, and WEL-355.

Course Type: Technical

## WEL-253 Gas Tungsten Arc Welding for Austenitic Stainless Steel: SENSE1

This course focuses on proper weld safety, machine setup and welding techniques for Gas Tungsten Arc Welding (GTAW). Students perform American Welding Society (AWS) compliant welds on austenitic stainless steel in flat, horizontal, and vertical positions. This course will prepare students to take an AWS welder certification test, which is recommended for successful completion of this course. This course aligns to SENSE Level I, Module 7 Key Indicators 1, 2 and 8-12 as well as Module 2 - Key Indicator 7, Module 3- Key Indicator 3, and Module 9 – Key Indicator 2.

Credit Hours: 1 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in WEL-228.

Co-requisite(s): WEL-252. Minimum grade of C- in WEL-354 and WEL-355.

Course Type: Technical

## WEL-262 Thermal Cutting Processes I - Manual and Mechanized OxyFuel Cutting: SENSE1

Focuses on proper safety, equipment setup and cutting techniques for manual and mechanized OxyFuel cutting on carbon steel. Students perform American Welding Society compliant cutting operations in the flat position. The student will also perform scarfing and gouging operations to remove base and weld metal in flat and horizontal positions on carbon steel. This course aligns to SENSE Level 1 Module 8 - Units 1 and 2, as well as Module 2 - Key Indicator 7 and Module 9 – Key Indicator 1.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Pre/Co-requisite(s): A minimum grade of C- in WEL-228.

Course Type: Technical

## WEL-263 Thermal Cutting Processes II - Plasma and Carbon Steel Arc: SENSE1

Focuses on proper safety, equipment setup and cutting techniques for Plasma and Carbon steel Arc cutting on carbon steel, austenitic stainless steel, and aluminum. Students perform American Welding Society compliant cutting operations in the flat position. The student will also perform scarfing and gouging operations to remove base and weld metal in flat and horizontal positions. This course aligns to SENSE Level 1 Module 8 - Units 3 and 4, as well as Module 2 - Key Indicator 7 and Module 9 – Key Indicator 1.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Pre/Co-requisite(s): A minimum grade of C- in WEL-228.

Course Type: Technical

## WEL-274 Shielded Metal Arc Welding I: SENSE1

Focuses on safety, amperage settings, polarity and the proper selection of electrodes for the shielded metal arc welding process. Students will perform American Welding Society compliant welds on carbon steel, using visual and destructive methods for determining weld quality. This course aligns to SENSE Level 1 Module 4 - Key Indicators 1-7 for the flat and horizontal positions, as well as Module 2 - Key Indicator 7, Module 3- Key Indicator 3, and Module 9 – Key Indicator 2.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Pre/Co-requisite(s): A minimum grade of C- in WEL-228.

Course Type: Technical

## WEL-275 Shielded Metal Arc Welding II: SENSE1

Focuses on safety, amperage settings, polarity and the proper selection of electrodes for the Shielded Metal Arc Welding (informally known as stick welding) process. Students perform American Welding Society complaint welds on carbon steel, in vertical up and overhead configurations, using visual and destructive methods for determining weld quality. This course aligns to SENSE Level 1 Module 4: Shielded Metal Arc Welding Key Indicators 1-7 for the flat and horizontal positions, as well as Module 2 - Key Indicator 7, Module 3- Key Indicator 3, and Module 9 – Key Indicator 2.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Prerequisite(s): Minimum grade of C- in WEL-228.

Pre/Co-requisite(s): Minimum grade of C- in WEL-274.

Course Type: Technical

## WEL-280 Flux Cored Arc Welding (Self-Shielded): SENSE1

Focuses on proper weld safety, machine setup and welding techniques for Flux Cored Arc Welding Self-Shielded. Students perform American Welding Society compliant welds on carbon steel in flat, horizontal, vertical and overhead positions. This course will prepare students to take an AWS welder certification test, which is recommended for its successful completion. It aligns to SENSE Level 1 Module 6 - Key Indicators 1, 2 and 8-12, as well as Module 2 - Key Indicator 7, Module 3- Key Indicator 3, and Module 9 – Key Indicator 2.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in WEL-288 and WEL-245.

Course Type: Technical

## WEL-281 Flux Cored Arc Welding (Gas-Shielded): SENSE1

Focuses on proper weld safety, machine setup and welding techniques for Flux Cored Arc Welding (Gas Shielded). Students perform American Welding Society compliant welds on carbon steel in flat, horizontal, vertical and overhead positions. This course will prepare students to take an AWS welder certification test, which is recommended for its successful completion. It aligns to SENSE Level 1, Module 6 - Key Indicators 1-7, as well as Module 2 - Key Indicator 7, Module 3- Key Indicator 3, and Module 9 – Key Indicator 2.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Prerequisite(s): Minimum grade of C- in WEL-228 and WEL-245.

Course Type: Technical

## WEL-339 Electromechanical Maintenance

This course is a basic introduction to welding and cutting processes. Topics include: shielded metal arc welding, gas metal arc welding, and gas tungsten arc welding. Cutting processes include oxy-fuel cutting and plasma arc cutting. Electric arc and oxy-fuel safety rules will be discussed.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Course Type: Technical

## WEL-346 GMAW Developmental I

This lab course will supplement content from Gas Metal Arc Welding (GMAW) I. Students will have the opportunity to further develop the skills for spray transfer welding including, but not limited to, manipulation of electrodes, determining changes in operating variables and applying welding methods to the five basic joints.

Credit Hours: 2 Lab Hours: 64

Prerequisite(s): Minimum grade of C- in WEL-228.

Co-requisite(s): Minimum grade of C- in WEL-245.

Course Type: Technical

## WEL-347 GMAW Developmental II

This lab course will be a continuance of Gas Metal Arc Welding (GMAW) methods. Students will perform within compliance of American Welding Society (AWS) codes, standards and regulations.

Credit Hours: 2 Lab Hours: 64

Prerequisite(s): Minimum grade of C- in WEL-228.

Co-requisite(s): Minimum grade of C- in WEL-244.

Course Type: Technical

## WEL-354 Gas Tungsten Arc Welding for Carbon Steel

Focuses on proper weld safety, machine set-up and welding techniques for Gas Tungsten Arc Welding (GTAW). Students preform American Welding Society (AWS) compliant welds on carbon steel in flat, horizontal, vertical and overhead positions, including open root. This course will prepare students to take AWS welder certification tests, which are recommended for successful completion of this course. This course aligns to SENSE Level 1, Module 7 Key Indicators 1-7, as well as Module 2 Key Indicator 7, Module 3 Indicator 3, and Module 9 Key Indicator 2.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Prerequisite(s): Minimum grade of C- in WEL-228.

Co-requisite(s): Minimum grade of C- in WEL-252 and WEL-355.

Pre/Co-requisite(s): Minimum grade of C- in WEL-253.

Course Type: Technical

## WEL-355 Gas Tungsten Arc Welding: Developmental

This lab course will be a continuance of Gas Tungsten Arc Welding (GTAW) methods. Students will perform welds according to American Welding Society (AWS) codes, standards and regulations. Students will examine, record, and test weldments and thermally cut surfaces per multiple welding codes, standards and specifications.

Credit Hours: 3 Lab Hours: 96

Prerequisite(s): Minimum grade of C- in WEL-228.

Co-requisite(s): Minimum grade of C- in WEL-354, and WEL-252, and WEL-253.

Course Type: Technical

## WEL-374 SMAW Developmental I

This lab course will be a continuance of Shielded Metal Arc Welding methods. Students will perform within compliance of American Welding Society codes, standards and regulations.

Credit Hours: 2 Lab Hours: 64

Co-requisite(s): WEL-274.

Course Type: Technical

## WEL-375 SMAW Developmental II

This lab course will supplement content from Shielded Metal Arc Welding II. Students will have the opportunity to further develop the skills for out of position welding including, but not limited to, manipulation of electrodes, determining changes in operating variables and applying welding methods to the five basic joints.

Credit Hours: 2 Lab Hours: 64

Co-requisite(s): WEL-275.

Course Type: Technical

## WEL-402 Tool Steel Welding and Heat Treatment

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 It 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.

Credit Hours: 2 Lecture Hours: 16 Lab Hours: 32

Course Type: Technical

## WEL-701 Robotic Welding

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.

Credit Hours: 3 Lecture Hours: 16 Lab Hours: 64

Course Type: Technical

# WST: Women's Studies

## WST-101 Women's Studies

This course serves as an introduction to the interdisciplinary field of women's studies and to current women's issues in our society. It explores ways in which women get marginalized and silenced primarily by the social definitions and the patriarchal male power structure. The course seeks to help students develop critical thinking relative to contemporary gender issues; to explore their assumptions about gender; to illuminate social constructions of femininity and women's roles; and to uncover the ways in which social teachings shape and limit women's lives.

Credit Hours: 3 Lecture Hours: 48

Course Type: General Education / Transfer

## WST-924 Honors Project

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. This course can be repeated with different content for credit. This course may be taken for 1–3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## WST-928 Independent Study

This course provides students with an opportunity to pursue or investigate a topic of interest that does not fit within the framework of regular course offerings. An independent study self-directed learning agreement must be discussed with and submitted to a faculty advisor prior to registration. This course may be repeated for credit with different content. Course can be taken for 1–3 credits.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer

## WST-949 Special Topics

Special Topics expands the curriculum by allowing students to enroll for up to three credits in a specific course or program area. Subject matter may be an in-depth extension of the particular area and is developed by the teaching faculty to meet unique interests and needs of the students. This course may not duplicate another one already in the catalog. This course may be repeated for credit with different content. This course can be taken for 1–3.

Credit Hours: 1 Lecture Hours: 16

Course Type: General Education / Transfer